DEVA

Selected Ground-Water Data for Yucca Mountain Region, Southern Nevada and Eastern California, Through December 1992

UNITED STATES GEOLOGICAL SURVEY
Open-File Report 94-54

Prepared in cooperation with the
NEVADA OPERATIONS OFFICE of the
U.S. DEPARTMENT OF ENERGY, under
INTERAGENCY AGREEMENT DE-AI08-92NV10874

Carson City, Nevada
1994

Selected Ground-Water Data for Yucca Mountain Region, Southern Nevada and Eastern California, Through December 1992

By Richard J. La Camera *and* Craig L. Westenburg

UNITED STATES GEOLOGICAL SURVEY
Open-File Report 94-54

Prepared in cooperation with the
NEVADA OPERATIONS OFFICE of the
U.S. DEPARTMENT OF ENERGY, under
INTERAGENCY AGREEMENT DE-AI08-92NV10874

Carson City, Nevada
1994

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, *Secretary*

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, *Director*

Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not constitute endorsement by the U.S. Government

---

For additional information
write to:

District Chief
U.S. Geological Survey
333 West Nye Lane, Room 203
Carson City, NV 89706-0866

Copies of this report may be
purchased from:

U.S. Geological Survey
Earth Science Information Center
Open-File Reports Services
Box 25286, MS 517
Denver Federal Center
Denver, CO 80225-0046

CONTENTS

Abstract 1
Introduction 1
Purpose and Scope 2
Acknowledgments 2
Description of Study Area 2
Alkali Flat-Furnace Creek Ranch Ground-Water Subbasin 2
Ash Meadows Ground-Water Subbasin 3
Data-Collection Sites 3
Site Number 3
U.S. Geological Survey Site Identification 6
Local Number 6
Depth of Well 6
Top and Bottom of Open Interval 6
Type of Opening 6
Data Source 6
Contributing Lithologic Units 7
Data Type 7
Data-Collection Procedures and Equipment 7
Periodic Water-Level Data 7
Land-Surface Altitude and Height of Measurement Point 7
Depth to Water and Altitude of Water Surface 8
Water-Level Measurements 8
Uncalibrated Electric Tape 8
Calibrated Airline 8
Calibrated Electric Tape, Single Conductor Cable, or Multiconductor Cable 8
Steel Tape 10
Monthly Average Water Level 11
Other 11
Continual Water-Level Data 11
Pressure-Sensor System at Site JF-3 13
Pressure-Sensor System at Site AD-6 13
Ground-Water Discharge Data 14
Ground-Water Withdrawals 14
Withdrawals from Alkali Flat-Furnace Creek Ranch Ground-Water Subbasin 14
Withdrawals from Ash Meadows Ground-Water Subbasin 15
Ground-Water Quality Data 15
Sample Collection and Processing 16
Field and Laboratory Analyses 16
Quality Assurance 16
Presentation of Ground-Water Data 17
Discussion of Ground-Water Data 30
Ground-Water Levels and Ground-Water Withdrawals in Jackass Flats 30
Ground-Water Quality in Yucca Mountain Region 34
References Cited 36
Basic Data 39

PLATE

1. Map showing location of data-collection sites through 1992, Yucca Mountain region of southern Nevada and eastern California

FIGURES

1-3. Graphs showing water-level altitude through 1992 for selected wells at which primary contributing units are:
1. Carbonate rock 18
2. Volcanic rock 20
3. Valley fill 21
4. Graph showing water-level altitude for site AM-4 (Devils Hole), 1962 through 1992 24
5-6. Graphs showing daily mean water level in:
5. Well JF-3, May through December 1992 25
6. Well AD-6, July through December 1992 25
7-9. Graphs showing discharge at:
7. Sites AM-1a (Fairbanks Spring), AM-5a (Crystal Pool), and AM-8 (Big Spring) through 1992 26
8. Sites AM-2 (Five Springs Well) and DV-2 (Navel Spring), 1990 through 1992 27
9. Site DV-1 (Texas Spring), 1989 through 1992 27
10-11. Graphs showing available estimates of annual ground-water withdrawals for selected areas within:
10. Alkali Flat-Furnace Creek Ranch ground-water subbasin, 1961 through 1992 28
11. Ash Meadows ground-water subbasin, 1962 through 1992 29
12-14. Graphs showing estimated ground-water withdrawals from Jackass Flats and water-level altitudes, 1983 through 1992, in:
12. Wells JF-1 and JF-2 31
13. Well JF-2a 32
14. Wells J-13, J-12, and JF-3 33

TABLES

1. Index to ground-water monitoring sites in Yucca Mountain region 4
2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992 40
3. Daily mean water level in well JF-3, May through December 1992 107
4. Daily mean water level in well AD-6, July through December 1992 108
5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992 109
6. Estimated annual ground-water withdrawals from wells in Yucca Mountain region, through 1992 119
7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992 121
8. Dissolved nitrogen and phosphorus species and total organic carbon in water samples, 1990 through 1992 127
9. Radiochemical constituents and stable isotopes in water samples, 1990 through 1992 129
10. Volatile organic industrial compounds in water samples, 1990 through 1992 131
11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992 141
12. Organochlorine and organophosphorus pesticides in water samples, 1990 through 1992 153
13. Minimum, maximum, and median water-level altitudes, and average deviation of measurements, at wells in Jackass Flats for selected periods prior to 1992 and for 1992. 157
14. Summary of (1) physical, chemical, and microbiological measures of ground-water samples that exceeded U.S. Environmental Protection Agency drinking-water standards, and (2) organic industrial compounds detected in samples 158

CONVERSION FACTORS

Multiply	By	To obtain
acre-foot (acre-ft)	1,233	cubic meter
foot (ft)	0.3048	meter
gallon per minute (gal/min)	0.0631	liter per second
inch (in.)	2.540	centimeter
mile (mi)	1.609	kilometer
million gallons (Mgal)	3,785	cubic meter
pound per square inch (lb/in^2)	51.72	millimeter of mercury

For temperature, degrees Celsius (°C) can be converted to degrees Fahrenheit (°F) by using the formula °F=[1.8(°C)]+32.

SEA LEVEL: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929, formerly called "Sea-Level Datum of 1929"), which is derived from a general adjustment of the first-order leveling networks of the United States and Canada.

ABBREVIATED WATER-QUALITY UNITS USED IN THIS REPORT

col./100 mL (colonies per 100 milliliters)
µg/L (micrograms per liter)
µS/cm (microsiemens per centimeter at 25 degrees Celsius)
mg/L (milligrams per liter)
pCi/L (picocuries per liter)

Digitized by the Internet Archive
in 2012 with funding from
LYRASIS Members and Sloan Foundation

http://archive.org/details/selectedgroundwa00laca

Selected Ground-Water Data for Yucca Mountain Region, Southern Nevada and Eastern California, Through December 1992

By Richard J. La Camera *and* Craig L. Westenburg

ABSTRACT

The U.S. Geological Survey, in support of the U.S. Department of Energy, Yucca Mountain Site-Characterization Project, collects, compiles, and summarizes hydrologic data in the Yucca Mountain region. The data are collected to allow assessments of ground-water resources during studies to determine the potential suitability of Yucca Mountain for storing high-level nuclear waste.

Data on ground-water levels at 36 sites, ground-water discharge at 6 sites, ground-water quality at 19 sites, and ground-water withdrawals within Crater Flat, Jackass Flats, Mercury Valley, and the Amargosa Desert are presented. Data on ground-water levels, discharges, and withdrawals collected by other agencies (or as part of other programs) are included to further indicate variations through time at selected monitoring locations. Data are included in this report from 1910 through 1992.

A statistical summary of ground-water levels at seven wells and median annual ground-water withdrawals in Jackass Flats is presented. The statistical summary includes the number of measurements, the maximum, minimum, and median water-level altitudes, and the average deviation of water-level altitudes for selected baseline periods and for calendar year 1992. Median annual ground-water withdrawals in Jackass Flats are included also.

Data on ground-water quality are compared to established, proposed, or tentative primary and secondary drinking-water standards. Characteristics and constituents which exceeded established, proposed, or tentative drinking-water standards are listed for 18 sites. Detected organic compounds for which established, proposed, or tentative drinking-water standards exist also are listed.

INTRODUCTION

Investigations are planned to determine the potential suitability of Yucca Mountain for storing high-level nuclear waste. The U.S. Department of Energy (USDOE) has declared that all facilities and activities associated with such investigations will be operated in a manner that maintains or protects environmental quality, and has established programs to allow assessments of environmental quality. In April 1989, the U.S. Geological Survey (USGS) began a cooperative program with USDOE to develop a monitoring program for water resources in the vicinity of Yucca Mountain. The purposes of the water-resources monitoring program are to (1) document the historical and current condition of ground-water resources, (2) detect and document changes in those resources during the investigations of Yucca Mountain, and (3) provide a basis for analyzing and identifying potential adverse effects on water resources resulting from investigations of Yucca Mountain.

Purpose and Scope

This report presents and summarizes, in tabular and graphical form, data collected as part of the water-resources monitoring program. Included are data on ground-water levels at 36 sites, ground-water discharge at 6 sites, ground-water quality at 19 sites, and ground-water withdrawals within Crater Flat, Jackass Flats, Mercury Valley, and the Amargosa Desert. Data on ground-water levels, discharges, and withdrawals collected by other agencies (or collected as part of other programs) are included to further indicate variations through time at selected monitoring locations. Data are included in this report from 1910 through 1992.

Acknowledgments

Personnel of several organizations and programs contributed substantially to this report. Specifically, data were provided by: National Park Service (Paul K. Christensen and Mel Essington); U.S. Fish and Wildlife Service (Suzanne C. Baird, Larry Martin, and Doug Threloff); Nevada Department of Conservation and Natural Resources, Division of Water Resources (Jason H. King and G.W. Quinn); Nevada Department of Transportation (Bill Graunke and Wayne McCurdy); Raytheon Services Nevada (David Putnam); Reynolds Electrical and Engineering Company (Ron Baugh); Saga Exploration Company (Dirk Benham); U.S. Borax Corporation (Steve Carpenter and Jeff Moore); U.S. Nevada Gold Search (Lacey Keller, M.R. Mapa, and Bill Stotts); and USGS-Yucca Mountain Project Branch studies of saturated-zone site hydrology (Michelle S. Boucher, Terry Cambell, Grady M. O'Brien, Patrick Tucci, and Raphael Valentine) and regional saturated-zone hydrology (John B. Czarnecki).

Additionally, the authors acknowledge the cooperation of the many individual property owners throughout the Amargosa Desert who allowed access to their property and the collection of hydrologic data.

DESCRIPTION OF STUDY AREA

The study area is the Yucca Mountain region of southern Nevada and eastern California (pl. 1). The Yucca Mountain region, as referred to in this report, is bounded approximately by latitudes 36°15′ and 37°00′ N. and longitudes 116°00′ and 117°00′ W. The region is within the Great Basin, a subdivision of the Basin and Range Physiographic Province (Fenneman, 1931, p. 328).

The study area is in the Death Valley ground-water flow system (Harrill and others, 1988, sheet 1) and, within that flow system, the Alkali Flat-Furnace Creek Ranch and Ash Meadows ground-water subbasins. Each ground-water subbasin is a zone consisting of ground-water recharge areas and flow paths to points of discharge at land surface (Waddell and others, 1984, p. 36 and pl. 3; Randell J. Laczniak, U.S. Geological Survey, written commun., 1993). Boundaries of the subbasins are defined on the basis of the location of low-permeability rocks, hydraulic gradients, and water chemistry. Those boundaries are general indicators of restrictions on ground-water movement in the region.

Within the Alkali Flat-Furnace Creek Ranch and Ash Meadows subbasins, the study area is further subdivided by hydrographic areas (pl. 1). As defined by Rush (1968, p. 4), hydrographic areas are geographic zones that generally consist of valleys (topographic lows) extending to their surrounding surface-water drainage divides (topographic highs). Hydrographic areas in the study area include Crater Flat, Jackass Flats, most of Rock Valley and Mercury Valley, and parts of Amargosa Desert and Death Valley (Rush, 1968; Harrill and others, 1988, sheet 2).

Alkali Flat-Furnace Creek Ranch Ground-Water Subbasin

In the Alkali Flat-Furnace Creek Ranch ground-water subbasin, ground-water recharge results principally from subsurface interbasin inflow and precipitation on mesas or mountains north of the study area. Subsurface interbasin

inflow also may occur near the Ash Meadows area in the Amargosa Desert (Waddell and others, 1984, p. 29-36; Harrill and others, 1988, sheet 2). Ground water discharges principally in Death Valley and at Alkali Flat about 5 mi southeast of Death Valley Junction (Waddell and others, 1984, p. 38).

In the part of the subbasin within the northern half of the study area, ground-water flow is generally to the south or southeast. In the part of the subbasin within the southern half of the study area, ground-water flow is to the southeast towards Alkali Flat or southwest towards Death Valley (Waddell and others, 1984, pl. 3; Kilroy, 1991, p. 9-10).

Crater Flat and Jackass Flats (which include Yucca Mountain), most of Rock Valley, and the west-central part of the Amargosa Desert hydrographic areas are within the Alkali Flat-Furnace Creek Ranch subbasin (pl. 1).

Ash Meadows Ground-Water Subbasin

In the Ash Meadows ground-water subbasin, ground-water recharge principally results from subsurface interbasin inflow and precipitation on mountains to the east and northeast of the study area (Waddell and others, 1984, p. 38; Harrill and others, 1988, sheet 2). Ground water discharges principally as springflow in the Ash Meadows area, and possibly as underflow to the Alkali Flat-Furnace Creek Ranch ground-water subbasin (Waddell and others, 1984, p. 36, 39).

In the part of the subbasin within the study area, the direction of ground-water flow is affected by the distribution of low-permeability rocks. Ground water in the region generally moves to the west or southwest (Waddell and others, 1984, p. 29, 38, and pl. 3; Harrill and others, 1988, sheet 2).

Most of Mercury Valley and the eastern part of the Amargosa Desert hydrographic areas are within the Ash Meadows subbasin (pl. 1). The southeastern part of the Amargosa Desert includes the Ash Meadows spring-discharge area. The Ash Meadows spring-discharge area, which generally refers to the gently sloping land watered by numerous springs (Dudley and Larson, 1976, p. 5) and is identified as Ash Meadows, is at the southwestern edge of the subbasin.

DATA-COLLECTION SITES

Locations of data-collection sites are shown on plate 1. The sites are listed in table 1 with supplemental site information. All sites are wells or springs except site AM-4 (Devils Hole), which is an open fissure that intersects the ground-water table. Table 1 includes information on site identification, site location, well construction, source of well-construction data, contributing lithologic units, and the types of data contained in this report for each site.

Site Number

Sites are identified on plate 1 by an alphanumeric number that is used in tables, figures, and text of this report. The site number consists of two parts. The first part represents the hydrographic area in which the site is located: "CF" represents Crater Flat; "JF" or "J," Jackass Flats; "RV," Rock Valley; "MV," Mercury Valley; "AD" or "AM," Amargosa Desert; and "DV," Death Valley. "AM" further indicates that the site is located in the Ash Meadows spring-discharge area. The second part of the number represents the relative location of the site within the hydrographic area (or Ash Meadows spring-discharge area). Sites are numbered sequentially within each hydrographic area in a general north-to-south then west-to-east order. Sites added subsequent to the initial site numbering are assigned the number of a nearby site and given the suffix of "a." Exceptions are sites J-11, J-12, and J-13, which were previously numbered by Raytheon Services Nevada and were not renumbered for this report.

Table 1. Index to ground-water monitoring sites in Yucca Mountain region

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
Local number: Alphanumeric number based on location of site within hydrographic areas and rectangular subdivisions of public lands. Hydrographic-area numbers: 225, Mercury Valley; 226, Rock Valley; 227, Jackass Flats; 229, Crater Flat; 230, Amargosa Desert.
Site name: NDOT, Nevada Department of Transportation; USBLM, U.S. Bureau of Land Management.
Depth of well: Well depths listed are accessible depths as reported by sources listed in explanation for Data Source, or as measured by U.S. Geological Survey personnel as of September 1990 (noted with "s"). NA, not applicable, site is spring or fissure that intersects ground-water table.
Top of open interval: Uppermost part of borehole that can receive ground water from lithologic interval as reported by sources listed in explanation for Data Source. Uncased hole is designated open interval in this table. NA, not applicable, site is spring or fissure that intersects ground-water table; U, unknown.
Bottom of open interval: Lowermost part of borehole that can receive ground water from lithologic interval as reported by sources listed in explanation for Data Source. Uncased hole is designated open interval in this table. NA, not applicable, site is spring or fissure that intersects ground-water table; U, unknown.
Type of opening: Description of open interval. NA, not applicable, site is spring or fissure that intersects ground-water table; P, perforated or slotted casing; S, screen, type not specified; U, unknown; X, open hole, no casing.
Data source: Data source for depth of well, top and bottom of open interval, and type of opening. Well depths noted with "s" were measured by U.S. Geological Survey personnel as of September 1990. D, driller's log or report; J, Johnston, 1968; L, Luckey and others, 1993; M, no source, data not available, or site is spring or fissure that intersects ground-water table; N, Raytheon Services Nevada Drilling and Mining Summary; O, owner of well; R, Robison and others, 1988; T, Thordarson and others, 1967.
Contributing units: Saturated lithologic interval yielding water to well. C, carbonate rock; C/F, carbonate rock and valley fill; F, valley fill; S, undifferentiated sedimentary rock; V, volcanic rock.
Data type: Data type included in this report. D, ground-water discharge; L, ground-water level; Q, ground-water quality.

Site number (plate 1)	U.S. Geological Survey site identification	Local number	Site name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Feet below land surface			Type of opening	Data source	Contributing units	Data type
						Depth of well	Top of open interval	Bottom of open interval				
CF-1	365520116370301	229 S12 E48 04DBB1	Gexa Well 4	365520	1163703	1,600	800	1,600	P	D	V	L,Q
CF-1a	365445116383901	229 S12 E48 07ADD1	Gexa Well 3	365445	1163839	700	208	313	P	D	S	L
							513	618	P			
							658	700	P			
CF-2	364732116330701	229 S13 E48 27C1	USW VH-1	364732	1163307	2,501	911	2,501	X	R	V	L
CF-2a	365821116343701	229 S13 E48 21CAA1	USW VH-2	364821	1163437	4,000	720	4,000	X	N	V	Q
JF-1	365116116233801	227 S12 E50 33A1	UE-25 WT 15	365116	1162338	1,360	127	1,360	X	R	V	L
JF-2	364945116235001	227 S13 E50 18B1	UE-25 WT 13	364943	1162351	1,160	222	1,160	X	L	V	L
JF-2a	364938116252102	227 S13 E49 02D1	UE-25p 1 PTH	364938	1162521	5,923	4,256	5,923	X	L	C	L
J-13	364828116234001	227 S13 E50 19C1	J -13 WW	364829	1162340	3,488	996	1,386	P	D	V	L,Q
							2,690	3,312	P			
							3,385	3,488	X			
J-11	364706116170601	227 S13 E51 31B1	J -11 WW	364706	1161706	1,329	1,077	1,097	P	T	V	L
							1,244	1,300	P			
							1,327	1,329	X			
J-12	364554116232401	227 S14 E50 06A1	J-12 WW	364554	1162324	1,139	793	868	P	D	V	L,Q
							887	1,139	X			
JF-3	364528116232201	227 S14 E50 06D1	JF-3	364528	1162322	1,138	735	1,138	P	D	V	L,Q
RV-1	363815116175901	226 S15 E50 24A1	TW-5	363815	1161759	800 s	735	800	P	T	S	L
MV-1	363530116021401	225 S16 E53 05ADAD1	Army 1 WW	363530	1160214	1,953	800	1,050	P	D	C	L,Q
							1,368	1,953	X			
AD-1	364141116351401	230 S14 E47 32DA1	NA-6 Well, BGMW-10	364130	1164112	960	930	940	S	D	F	L

Table 1. Index to ground-water monitoring sites in Yucca Mountain region--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Local number	Site name	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Feet below land surface			Type of opening	Data source	Contributing units	Data type
						Depth of well	Top of open interval	Bottom of open interval				
AD-2	363830116241401	230 S15 E49 24ABB1	Airport Well	363825	1162433	750 s	360	777	P	D	F	L,Q
AD-2a	363835116234001	230 S15 E50 18CCDB1	NDOT Well	363835	1162340	495	395	495	P	D	F	L,Q
AD-3	363434116354001	230 S16 E48 08BAAA1	DeFir Well	363456	1163525	243 s	100	250	P	D	F	L
AD-4	363428116240301	230 S16 E50 07CBBB1	Cooks West Well	363428	1162403	312 s	178	299	P	D	F	L
AD-4a	363428116234701	230 S16 E50 07CABB1	Cooks East Well	363428	1162347	269 s	147	213	P	D	F	L,Q
							238	269	P			
AD-5	363310116294001	230 S16 E49 18DCCA1	USBLM Well	363310	1162940	348 s	U	U	U	M	F	L
AD-6	363213116133800	230 S16 E51 27BAA3	Tracer Well 3	363213	1161338	675 s	620	675	X	J	C	L
AD-7	363009116302701	230 S17 E48 01AB1	Hallowell Well	363009	1163027	112 s	73	131	P	D	F	L
AD-8	362929116085701	230 S17 E52 08CDB1	Cherry Patch Well	362929	1160857	215 s	U	U	U	M	F	L,Q
AD-9	362848116264201	230 S17 E49 15BBBB1	Gilgans North Well	362848	1162646	396 s	60	90	P	D	F	L
							154	244	P			
							244	396	X			
AD-9a	362835116264101	230 S17 E49 15BC1	Gilgans South Well	362835	1162641	415 s	55	200	P	D	F	Q
							200	415	X			
AD-10	362525116274301	230 N26 E05 05BC1	NA-9 Well	362525	1162743	1,090	1,063	1,066	S	D	F	L
AD-11	361954116181201	230 S19 E50 01BBD1	GS-3 Well	361957	1161752	2,000	1,969	1,979	S	D	F	L
AD-12	362014116133901	230 S18 E51 34CBD1	GS-1 Well	362021	1161330	1,580	1,549	1,559	S	D	F	L
AD-13	361724116324201	230 N25 E04 21CB1	S-1 Well	361724	1163242	2,000	1,969	1,979	S	D	F	L
AD-14	361817116244701	230 N25 E05 14CB1	Death Valley Jct Well	361817	1162447	225 s	160	200	S	D	F	L
AM-1	362858116195301	230 S17 E50 10CDD1	Rogers Spring Well	362856	1161953	202 s	100	240	P	D	F	L
AM-1a	362924116203001	230 S17 E50 09AD1	Fairbanks Spring	362926	1162028	NA	NA	NA	NA	M	C/F	D,Q
AM-2	362755116190401	230 S17 E50 23BBCA1	Five Springs Well	362755	1161904	123 s	0	100	P	D	C	D,L,Q
AM-3	362555116205301	230 S17 E50 33CAAB1	Garners Well	362555	1162053	202 s	140	180	P	O	F	L,Q
AM-4	362532116172700	230 S18 E50 36DC1	Devils Hole	362532	1161727	NA	NA	NA	NA	M	C	L,Q
AM-5	362529116171100	230 S17 E50 36DDC1	Devils Hole Well	362530	1161715	200 s	48	200	P	D	F	L
AM-5a	362502116192301	230 S18 E50 03ADBA1	Crystal Pool	362513	1161927	NA	NA	NA	NA	M	C/F	D,Q
AM-6	362432116165701	230 S18 E51 07BBBB1	Point of Rocks North Well	362432	1161657	500	139	500	P	D	F	L
AM-7	362417116163600	230 S18 E51 07BDB1	Point of Rocks South Well	362420	1161637	586 s	132	467	P	D	C	L
							468	818	X			
AM-8	362230116162001	230 S18 E51 19ACB1	Big Spring	362229	1161625	NA	NA	NA	NA	M	C/F	D,Q
DV-1	362728116501101	230 N27 E01 23ABB1	Texas Spring	362728	1165011	NA	NA	NA	NA	M	C/F	D,Q
DV-2	362252116425301	230 N26 E02 13BD1	Navel Spring	362252	1164253	NA	NA	NA	NA	M	S	D,Q
DV-3	362230116392901	230 N26 E03 21CA1	Travertine Point 1 Well	362230	1163929	650 s	100	970	X	D	C	L

U.S. Geological Survey Site Identification

Sites are identified by the standard Geological Survey identification number, which is based on latitude and longitude. The site identification serves as a unique identification number in files and data bases of the USGS and indicates the approximate geographic location of each site. The identification consists of 15 digits: The first 6 denote the degrees, minutes, and seconds of latitude; the next 7 denote degrees, minutes, and seconds of longitude; and the last 2 digits (assigned sequentially) identify the sites within a 1-second grid. For example, site 363530116021401 is at 36°35'30" latitude and 116°02'14" longitude, and it is the first site recorded in that 1-second grid. If a more precise latitude and longitude are determined, the unique identification number remains unchanged. Latitude and longitude shown for a site, therefore, are the most accurate locators.

Local Number

The local-number system (table 1) is based on an index of hydrographic areas (Rush, 1968; Harrill and others, 1988) and the rectangular subdivision of the public lands referenced to the Mount Diablo base line and meridian for sites in Nevada or San Bernadino base line and meridian for sites in California. Each site designation consists of four units separated by spaces: The first unit is the hydrographic area number. The second unit is the township, preceded by an N or S to indicate location north or south of the base line. The third unit is the range, preceded by an E to indicate location east of the meridian. The fourth unit consists of the section number and letters designating the quarter section, quarter-quarter section and so on (A, B, C, and D, indicate the northeast, northwest, southwest, and southeast quarters, respectively), followed by a number indicating the sequence in which the well was recorded. For example, site 230 S18 E51 34CB1 is in Amargosa Desert (hydrographic area 230) and is the first site recorded in the northwest quarter of the southwest quarter of section 34, Township 18 South, Range 51 East, Mount Diablo base line and meridian.

Depth of Well

Depth of a well (table 1) is the accessible or measurable depth to the bottom of the hole and does not apply to springs or fissures. The drilled depth may be greater than the depth of the well due to modifications of the well or accumulation of sediment at the bottom of the hole. The depth of each well was measured by USGS (depths noted with "s") or was reported by other data sources. The USGS measured depths less than 1,000 ft by "sounding" the bottom of the well with weighted steel or electric tapes.

Top and Bottom of Open Interval

Open intervals (table 1) are parts of the borehole that are open to the surrounding lithologic intervals and may allow water to enter the well. An uncased section of a well is considered an open interval in this report. Top and bottom of the open interval do not apply to springs or fissures.

Type of Opening

Type of opening (table 1) is a physical description of the open intervals of a borehole and does not apply to springs or fissures. The types of openings are perforated or slotted casing, screened casing, and open hole with no casing.

Data Source

Data sources (table 1) are organizations or publications that provided information on depth of the well, open interval, and type of opening. Drillers' logs or records are filed with the Nevada Division of Water Resources (NDWR) or maintained by the well owner. Reports are USGS publications written for USDOE as part of cooperative studies associated with weapons-testing hydrology programs (Thordarson and others, 1967; Johnston, 1968) or Yucca Mountain site-characterization studies (Robison and others,

1988; Luckey and others, 1993). Raytheon Services Nevada is a contractor for USDOE and maintains a summary of well-construction information.

Contributing Lithologic Units

Contributing units (table 1) are the lithologic intervals at the site that yield water to the well or spring. Robison and others (1988) describe the saturated intervals at sites CF-2, JF-1, JF-2, and J-13 as volcanic rock and at site JF-2a as carbonate rock. McKinley and others (1991) describe the contributing units for sites J-11 and J-12 as volcanic rock; sites MV-1, AD-6, and AM-4 as carbonate rock; site AM-8 as carbonate rock and valley fill; site DV-2 as undifferentiated sedimentary rock; and sites AD-4, AD-5, and AD-8 as valley fill. Dudley and Larson (1976) describe the contributing units for sites AM-2 and AM-7 as carbonate rock and site AM-5 as valley fill. Waddell and others (1984, p. 34) describe the contributing unit for site DV-1 as valley fill. Winograd and Thordarson (1975, p. C95-C97) state that the source of water in the saturated valley fill at site DV-1 could, in part, be the underlying carbonate rock. Winograd and Thordarson (1975, p. C75-C81) also suggest that underlying carbonate rock could provide water to the saturated valley fill at sites AM-1a, AM-5a, and AM-8. Contributing-unit data are not available from listed data sources for some wells; the contributing units indicated for those wells are based on geologic data derived from drillers' logs and depth-to-water data.

Data Type

Data type (table 1) identifies the types of data (water level, discharge, and water quality) presented for each site. Ground-water-level data are in tables 2-4 and ground-water-discharge data are in table 5. Data on estimated annual withdrawals for selected areas are in table 6 and ground-water-quality data are in tables 7-12.

DATA-COLLECTION PROCEDURES AND EQUIPMENT

Data-collection procedures and equipment used by U.S. Geological Survey Environmental-Monitoring Program (USGS-EMP) to collect data are described in detail. Data-collection procedures and equipment used by other sources are described briefly. Water-level and discharge data were compiled from USGS data bases, USGS or cooperative publications, records of other USGS programs or federal government agencies, or measurements by USGS-EMP. Water-quality data are from USGS-EMP. Water-use data are compiled from available sources as described in the section "Ground-Water Withdrawals."

Periodic Water-Level Data

Periodic water-level measurements (table 2) are generally made during site visits, using one of the methods described in the section "Water-Level Measurements." An exception is data collected by the National Park Service at site AM-4 (Devils Hole), which represent a monthly average water level and are based on continually collected data. Supplemental information, including land-surface altitude, height of measurement point, depth to water, method of measurement, site status, and source of data, is listed also in table 2.

Land-Surface Altitude and Height of Measurement Point

Land-surface altitude and height of the measurement point (MP) above (or depth below) land surface are included with periodically collected data in table 2. Land-surface altitude is a representative altitude of land at or near the site. An exception is site AM-4, where the land-surface altitude represents the altitude of the measurement point (a bolt fastened to the south wall of the fissure) that is not referenced to land surface. Land surveys were made by USGS personnel at the monitoring sites, except at site MV-1, to determine the altitudes of land surface or the MP.

Heights of MP's for sites in Amargosa Desert (except AM-4), Death Valley, and Rock Valley were determined by measuring the distance of the MP above (or depth below) a representative point on the land surface at or near the well. The altitude of the MP was determined during the USGS land survey, and land-surface altitude was computed by adding or subtracting the MP height from the surveyed MP altitude.

At sites JF-1, JF-2, JF-2a, and J-13, recent USGS land surveys verified previously reported land-surface and MP altitudes. At sites CF-2, J-11, and J-12, USGS land surveys verified the previously reported land-surface altitudes and determined the MP altitude. At sites CF-1 and CF-1a, USGS land surveys determined the land surface and MP altitudes. The height of the MP is the difference of the MP altitude and land-surface altitude. Land-surface altitudes are reported to the nearest tenth of a foot. At site MV-1, however, where no USGS land survey was made, altitude is reported only to the nearest foot.

Depth to Water and Altitude of Water Surface

Depth to water is the depth to water below land surface. It is computed as the measured depth to water below the MP minus the height of the MP (above land surface) at the well. An exception is site AM-4, where depth to water is measured below the MP, and the MP is not referenced to land surface. Where depth to water is negative (site AM-2), the water surface is above land surface.

The altitude of water surface is the depth to water subtracted from the altitude of land surface and is reported to the nearest 0.1 ft.

Water-Level Measurements

Periodic water-level measurements were made using the procedures and equipment that are described in the following sections.

Uncalibrated Electric Tape

The uncalibrated electric tape is a 1,000-ft tape equipped with a probe that activates a light or buzzer upon contact with the water. The probe is lowered to the water surface and depth readings below the MP are determined from markings on the tape. Water levels measured using an uncalibrated electric tape are reported to the nearest 0.1 foot.

Calibrated Airline

A submerged airline is pressurized and pressure is read on an attached dial, in pounds per square inch. The pressure reading is directly related to the height of water column above the submerged end of the airline. Depth to water is computed by subtracting the height of the water column from the known depth of the submerged airline end. Concurrent measurements of depth to water with an electric tape and height of the water column above the submerged airline end are used to determine the depth of the submerged airline end.

Calibrated Electric Tape, Single Conductor Cable, or Multiconductor Cable

USGS-EMP used two calibrated electric tapes during 1991-92. Each tape was marked with a unique identifier (YMP-1 and YMP-2) for quality-assurance purposes and calibrated against either the U.S. Geological Survey Site-Characterization Program (USGS-SCP) 2,800-ft reference steel tape or a 2,600-ft calibrated steel tape (Robison and others, 1988, p. 6-11; Gemmell, 1990, p. 8-12; O'Brien, 1991, p. 8-13). Calibration data for YMP-1 and YMP-2 from December 1991 to December 1992 are summarized in the following table. For USGS-SCP tapes, the correction was that used by USGS-SCP at the time of measurement and is equal to the difference between the corrected and uncorrected readings.

Electric tape calibration data

Date	Location	Tape used	Depth below measuring point		Correction (feet)
			Uncorrected (feet)	Corrected (feet)	
12/17/91	J-13	USGS-SCP reference tape (RT)	928.99	928.91	-0.08
12/17/91	J-13	YMP-1	929.40	928.91	-.49
12/17/91	J-13	YMP-2	929.19	928.91	-.28
12/17/91	J-12	USGS-SCP RT	745.01	744.94	-.07
12/17/91	J-12	YMP-1	745.42	744.94	-.48
12/17/91	J-12	YMP-2	745.18	744.94	-.24
05/13/92	J-13	USGS-SCP RT	929.21	929.13	-.08
05/13/92	J-13	YMP-1	929.64	929.13	-.51
05/13/92	J-13	YMP-2	929.53	929.13	-.40
11/19/92	J-12	USGS-SCP steel tape (ST)	745.12	745.09	-.03
11/19/92	J-12	YMP-1	745.61	745.09	-.52
11/19/92	J-12	YMP-2	745.39	745.09	-.30
11/20/92	CF-2	USGS-SCP ST	605.29	605.25	-.04
11/20/92	CF-2	YMP-1	605.76	605.25	-.51
11/20/92	CF-2	YMP-2	605.56	605.25	-.31
12/11/92	AD-13	USGS-EMP ST	384.18	384.18	.00
12/11/92	AD-13	YMP-1	384.43	384.18	-.25
12/11/92	AD-13	YMP-2	384.31	384.18	-.13
12/11/92	AD-2a	USGS-EMP ST	342.50	342.50	.00
12/11/92	AD-2a	YMP-1	342.75	342.50	-.25
12/11/92	AD-2a	YMP-2	342.65	342.50	-.15
12/11/92	AD-5	USGS-EMP ST	119.03	119.03	.00
12/11/92	AD-5	YMP-1	119.12	119.03	-.09
12/11/92	AD-5	YMP-2	119.07	119.03	-.04
12/17/92	AD-11	USGS-EMP ST	227.80	227.80	.00
12/17/92	AD-11	YMP-1	227.91	227.80	-.11
12/17/92	AD-11	YMP-2	227.83	227.80	-.03

These corrections are applied to account for mechanical stretch and thermal expansion. The correction for YMP-1 and YMP-2 is the difference between the corrected USGS-SCP measurement or USGS-EMP steel-tape measurement and the USGS-EMP uncorrected measurement.

A summary of correction factors applied to USGS-EMP electric tapes, based on calibration data, is listed in the table below. These correction factors were computed from the corrections determined during tape calibrations and are primarily dependent on the depth to water, which affects mechanical stretch. The appropriate correction factor for electric-tape water-level measurements was determined by the date and depth to water listed in the following table. USGS-EMP electric tapes were not used to measure water-levels in the 400-500-ft range; therefore no correction factor is required.

The physical condition of YMP-1 did not change during the period it was used and the corrections for depths greater than 500 ft averaged -0.50 ft. Corrections for depths less than 500 ft were computed from calibrations made in December 1992.

Applied correction factors for electric tapes YMP-1 and YMP-2

Tape	Measurement period		Depth to water (feet below measurement point)		
	Start	End	Less than 300 feet	300-400 feet	More than 500 feet
YMP-1	12/17/91	12/31/92	-0.10	-0.25	-0.50
YMP-2	12/17/91	5/13/92	.00	-.10	-.26
	5/13/92	11/18/92	-.14	-.24	-.40
	11/19/92	12/31/92	-.04	-.14	-.30

The physical condition of YMP-2 changed twice; the probe was replaced in May and again in November 1992. Due to the physical changes, correction factors for YMP-2 depend on both date and depth to water. Correction factors for all depths less than 500 ft were computed from calibrations made in December 1992.

Calibrated electric tapes were used at all sites where depths to water exceeded 500 ft, where cascading water caused imprecise steel-tape readings, and when frequent repetitive measurements were required due to fluctuating water levels. Electric-tape measurements are made by lowering the tape to the water surface until a light or buzzer is activated when the probe contacts the water. The tape is raised and lowered slowly until the exact point of contact is located. While holding the tape on the MP, the depth to water below the MP is read from markings on the tape. At least one additional reading of depth to water is recorded for every measurement made with a calibrated electric tape to verify the initial reading. An example of the calculation of depth to water below land surface, at a site with cascading water, using USGS-YMP calibrated electric tape YMP-1 is shown below:

Location: AD-4a
Date (and time): October 21, 1992 (1030)
Tape ID: YMP-1
Correction: -0.10 ft (for depths less than 300 ft)

Depth below MP	117.32 ft
Correction factor	-.10 ft
Corrected depth below MP	117.22 ft
Height of MP above land surface	-1.00 ft
Depth to water below land surface	116.22 ft

Some historical water-level measurements, as part of other USGS programs, were made using a calibrated single-conductor or multiconductor cable. A single-conductor cable was generally used to make water-level measurements at sites J-11, J-12, and RV-1, prior to 1990. Single-conductor measurements were made according to procedures described in Garber and Koopman (1968). A multiconductor cable was used by USGS-SCP for some water-level measurements at sites CF-2, JF-1, JF-2, and JF-2a. The procedure for making measurements with multiconductor cable is described in Robison and others (1988), Gemmel (1990), and O'Brien (1991).

Steel Tape

USGS-SCP made water-level measurements using calibrated steel tapes at sites CF-2, JF-1, JF-2, JF-2a, J-13, J-11, and J-12. Descriptions of the steel tapes, applicable corrections, and procedures used by USGS-SCP for making steel-tape measurements are given by Robison and others (1988, p. 6-11), Gemmell (1990, p. 8-12), and O'Brien (1991, p. 8-13). USGS-SCP steel-tape measurements were compiled from the above sources or from information provided by USGS-SCP (Michelle Boucher, U.S. Geological Survey, written communs., 1992-93). Corrected depth-below MP measurements were provided by USGS-SCP and converted to depth below land surface by USGS-EMP by subtracting the height of the MP above land surface.

Water-level measurements at other sites were made by the USGS or U.S. Fish and Wildlife Service (USFWS) using 300- or 500-ft reeled

steel tapes. General procedures for using 300- and 500-ft reeled tapes are to (1) chalk the bottom section of the tape, (2) lower the tape into the well until part of the chalked section is below the water surface, (3) hold the tape on the MP and record the "hold" reading, (4) raise the end of the tape to the surface, observing the "cut" (the top of the wet part of the chalked tape), (5) record the reading of the cut, (6) calculate the depth to water below the MP by subtracting the "cut" reading from the "hold" reading, and (7) calculate the depth to water below land surface by subtracting the height of the MP from the depth to water below MP.

USGS-EMP maintains one 500-ft tape as a reference tape and uses three field tapes (two 500-ft and one 300-ft) for routine measurements. All steel tapes are uniquely marked for identification purposes. The field tapes were checked against the reference tape at five sites during December 1992 at depths to water ranging from about 119 to 385 ft. All the steel-tape measurements were within 0.01 ft of the reference tape; as a result, no correction factor was used for water-level measurements made with USGS-EMP steel tapes. At least one additional reading of the depth to water is recorded for every measurement to verify the initial reading.

Monthly Average Water Level

A water-level recorder, operated by the National Park Service, at site AM-4 (Devils Hole) records the depth to water below an installed measurement point. The daily mean water levels for each month with a complete record are used to compute a monthly average water level. The monthly average water levels are listed in table 2 as periodic water-level data for the 15th of the month.

Other

Sites JF-2 (UE-25 WT 13) and JF-2a (UE-25p 1 PTH) were equipped with pressure transducers and cables as part of site-characterization studies, in February and March 1985, respectively (Luckey and others, 1993, p. 69-83, 116-127). USGS-SCP calibrates the pressure transducer, develops an equation to convert transducer voltage to depth to water below the MP, and records voltage of the transducer during each site visit. Owing to the small diameter of the access tubes, the transducer must be removed to provide access for measuring the water level with a steel tape. When a steel-tape measurement cannot be made, the depth to water can be computed using the USGS-SCP transducer voltage data and conversion equation. Periodic water-level measurements at sites JF-2 and JF-2a, indicated with method "B" in table 2, are computed using this procedure. Installation, calibration, and operation of pressure transducers by USGS-SCP are described by Luckey and others (1993, p. 14-21).

Site AM-4 (Devils Hole) has a small metal bolt fastened to the south wall of the fissure and a staff plate fastened near the west edge of the pool. The bolt is the measurement point and depth-to-water measurements are the depth to water below the MP. The staff plate enables direct readings of water level and the 0.00-ft mark on the staff plate is level with the MP. A staff reading should be equivalent to a measurement made from the MP to the water surface with a ruled tape.

Methods of water-level measurement were not specified for some data from unpublished and published sources. Measurements in table 2 made using methods that are unknown are indicated by "R" or "Z."

Continual Water-Level Data

Two sites, JF-3 and AD-6, are instrumented to continually record ground-water level, atmospheric pressure, and battery voltage at 15-minute intervals. Instrumentation includes a pressure sensor installed below the water surface, a barometer, and a data logger. Recorded data are processed to produce data on continual depth to water, atmospheric pressure, battery voltage, and daily mean depth to water. Sites JF-2 and JF-2a also are instrumented to continually record water-level data; that data are collected, processed, reviewed, and published by USGS-SCP.

The pressure sensors at sites JF-3 and AD-6 transmit data to the data logger in pounds per square inch, which varies with the height of the water above the sensor. The range of output is 0 to 5.000 lb/in^2, which corresponds to a theoretical range of 0 to 11.53 ft of water above the pressure sensor. The general steps for installing, calibrating, and processing pressure-sensor data are as follows:

1. Depth to water below MP is measured with a steel or calibrated electric tape and recorded. If a calibrated electric-tape measurement is made, a correction factor is applied. Depth to water below MP is used for pressure-sensor calibration because a fixed point of reference is required.
2. The pressure-sensor cable is connected to a data logger and the sensor is lowered down the well until a substantial change in readings indicates the water surface has been reached. These readings are recorded in the data logger.
3. The sensor is lowered to the set point and allowed to equilibrate. The set-point depth of the sensor is determined by adding the depth-to-water measurement to the depth at which the sensor is installed below the water surface. For example, if the water-level measurement is 710 ft below the MP and the sensor is installed 5 ft below the water surface, the set-point depth is 715 ft.
4. Water-level fluctuations are simulated by raising and lowering the pressure sensor. The sensor is raised to the water surface and the sensor cable is marked or tagged at the MP. The time, height of the sensor above the set point, and data logger reading are recorded. For example, if the set point is 715 ft below the MP and the sensor is raised 5 ft to the water surface, 5 ft would be recorded with the time and reading of the data logger. The sensor is then lowered at 1/2-, 1-, or 2-ft intervals. The sensor cable can be marked or tagged at the measured intervals. After the sensor output has stabilized at each interval, the time, data-logger reading (in pounds per square inch), and height of sensor above the set point are recorded. This procedure is repeated until a range of readings and depths that spans the anticipated range of water-level fluctuation is recorded.
5. Another water-level measurement is made with a steel or calibrated-electric tape to check for fluctuation of the water level during installation of the sensor.
6. Data collected while raising and lowering the sensor are used to develop a regression equation to convert pressure readings to water level below MP. Each height of the sensor above the set point (step 4) is added to the set point (step 3) to compute a simulated depth to water below the MP. If the sensor was lowered below the set point during the calibration, the depth of the sensor below the set point is subtracted from the set-point height to compute a simulated depth to water. For example, the set-point depth corresponds to a depth to water 710 ft below the MP (depth of submergence is 5 ft). The reading made when the sensor is raised 1 ft (depth of submergence is 4 ft) corresponds to a simulated depth to water below the MP of 711 ft (set point of 710+1=711 ft). Raising the sensor 1 ft simulates a lowering of the water-table level of 1 ft and a corresponding increase in the depth to water of 1 ft. Raising the sensor 2 ft (depth of submergence is 3 ft) simulates a lowering of the water-table level 2 ft and an increase in the depth to water of 2 ft (to 712 ft in this example).
7. The pressure readings from the data logger (step 4) and simulated depths below the MP (step 6) are regressed using pounds per square inch as the independent variable and depth below the MP as the dependent variable. Typically, pressure readings are recorded at five simulated depths to water. The regression equation converts those readings to depth to water below the MP.

Water-level measurements are made with a steel or calibrated-electric tape when a continual monitoring site is visited. The pressure-sensor reading is recorded at the time of the measurement. The reading is converted to depth to water, using the established regression equation, and recorded as predicted water level. The steel tape or calibrated electric tape water-level measurements are used as reference measurements and are compared to the predicted value. Any difference between the reference measurement and predicted value is applied to the continual record by linearly prorating the difference with time between consecutive visits to account for drift in pressure-sensor output.

Data are periodically retrieved from the data logger using a portable computer, transferred to the USGS National Water-Information System (NWIS), and processed using data-base programs to store pressure-sensor, barometer, and battery data. The pressure-sensor data are converted to depth below land surface and stored. Daily mean data are computed from the continual data and stored in the data base. Daily mean depth-to-water data are used to compute daily mean water-level altitudes, which also are stored in the data base.

Pressure-Sensor System at Site JF-3

Instrumentation to continually collect water-level data was installed at JF-3 on May 28, 1992, and data were collected every 15 minutes through December 1992. The pressure-sensor set point is 718.3 ft below the MP. An initial regression equation was developed during installation of the sensor: depth to water below MP=(-2.330 x pressure reading)+718.234. An MP correction of 2.27 ft for JF-3 was incorporated to produce the equation: depth to water below land surface = (-2.330 x pressure reading)+715.964. This equation is used to convert pressure readings stored in the data base to depth below land surface. Differences between reference measurements made with calibrated electric tapes and predicted water levels based on conversion of pressure readings ranged from -0.01 ft to +0.01 ft from May 28 to July 24, 1992. The difference increased to 0.11 ft on August 25, 1992. Equipment was calibrated on November 19, 1992, and a new regression equation was developed: depth below land surface= (-2.332 x pressure reading)+716.123. This equation, when used, reduced the difference between reference and predicted water levels from 0.11 ft to -0.04 ft. The first equation was used until August 25, 1992, and the difference of 0.11 ft was prorated with time from July 24 to August 25 and applied to computed water levels.

Depth-to-water measurements made with calibrated electric tapes from May to December 1992 ranged from 709.95 ft (June 29) to 710.26 ft (October 22) below land surface. Continually recorded water-level measurements ranged from 709.59 ft (December 2) to 710.58 ft (November 26) below land surface.

Pressure-Sensor System at Site AD-6

Instrumentation to continually collect water-level data was installed at AD-6 on July 29, 1992, and data were collected every 15 minutes through December 1992. The pressure-sensor set point is 47.2 ft below the MP. An initial regression equation was developed during installation of the sensor: depth to water below MP=(-2.316 x pressure reading)+47.182. An MP correction of 0.40 ft for AD-6 was incorporated to produce the equation: depth to water below land surface= (-2.316 x pressure reading)+46.782. This equation is used to convert pressure readings stored in the data base to depth below land surface. Differences between reference measurements made with reeled steel tapes and predicted water levels based on conversion of pressure readings ranged from -0.03 ft to 0.00 ft from July 29 to December 31, 1992.

Depth-to-water measurements made with reeled steel tapes from July to December 1992 ranged from 41.35 ft (December 15) to 41.71 ft (August 25) below land surface. Continually recorded water-level measurements ranged from 41.24 ft (December 2) to 41.83 ft (July 30) below land surface.

Ground-Water Discharge Data

Measurements of ground-water discharge were collected and compiled for five springs and one flowing well. Four of the sites, AM-1a, AM-2, AM-5a, and AM-8, are in the Ash Meadows spring-discharge area of the Amargosa Desert. The other two sites, DV-1 and DV-2, are in Death Valley.

Discharge measurements were made by NPS, USFWS, and USGS. Instantaneous or monthly mean discharge data were determined by the use of current meters, flumes, and volumetric techniques. The most commonly used method for measuring discharge was the vertical-axis current meter. This method is used to determine the average velocity of a partial section within a channel cross section. The average velocity of the partial section times the area of the partial section equals discharge of the section. The summation of the discharges for all the partial sections is the total discharge in the channel. This method is described in more detail by Buchanan and Somers (1969).

Some instantaneous discharge values were determined by measuring the depth of water inside a flume. This depth, or stage, is compared to an applicable stage-discharge relation for the flume to determine discharge. Where a continuous-recording instrument has been installed on a flume, monthly mean discharges can be computed from data collected and processed for an extended period. This method was used for site DV-1, where monthly mean discharge was computed only for months with complete data and reported for the 15th of the month. Determining discharges by the use of flumes is further described by Kilpatrick and Schneider (1983).

The volumetric method was used for measuring ground-water discharge from sites AM-2 and DV-2. A container with markings indicating known volumes was used to collect all discharge from the site while a stopwatch was used to determine the length of time the discharge was collected. The container was positioned to collect the discharge and the stopwatch was started simultaneously. The container was removed, before it was overfilled, and the stopwatch was stopped simultaneously. The volume collected and elapsed time were recorded. The discharge rate is the volume collected divided by the time. This procedure was repeated three times and an average rate was computed for each site visit.

The accuracy of the methods is directly related to the operational conditions of the equipment used and to the environmental conditions in which the equipment operated. Discharge values are reported to two significant figures. Discharge determined by all methods ranged from 0.73 gal/min at site AM-2 to 3,800 gal/min at site AM-5a.

Ground-Water Withdrawals

Ground-water withdrawals were estimated from compiled data. Withdrawal data were supplied by public agencies including U.S. Department of Energy, U.S. Geological Survey, and the Nevada Division of Water Resources; and private organizations including Reynolds Electrical and Engineering Company, Saga Exploration Company, and U.S. Nevada Gold Search. Estimated annual ground-water withdrawals are based solely on available data. Estimates for some years, therefore, reflect a lack of information for an entire area or for pumping wells within in area and underestimate total withdrawals.

Withdrawals from Alkali Flat-Furnace Creek Ranch Ground-Water Subbasin

Withdrawals from the part of the Amargosa Desert within the subbasin were recompiled from ground-water pumpage inventories taken by NDWR. The pumpage inventories were for the entire Amargosa Desert hydrographic area during 1966-68, 1973, and 1985-92. Included are withdrawals for irrigation, mining, industrial, commercial, quasi-municipal, and domestic use. All reported withdrawals for mining are from the Alkali Flat-Furnace Creek Ranch ground-water subbasin. On the basis of discussions with NDWR, all industrial, commercial, and quasi-municipal withdrawals are assumed to be from the Alkali Flat-Furnace Creek Ranch ground-water subbasin. All reported domestic use for the Amargosa Desert (except for 1992) is included because data were not available to exclude the amount used in the Ash Meadows ground-water subbasin.

Withdrawals from Crater Flat were compiled from flowmeter data for wells CF-1, CF-1a, CF-2, and CF-2a. U.S. Nevada Gold Search supplied flowmeter readings for CF-1 from September 28, 1989, through September 5, 1991, and for CF-1a from July 26, 1989 through December 3, 1990. USDOE supplied data for CF-2 from November 1991 through April 1992. Saga Exploration Company supplied readings for CF-2a for 1992.

Withdrawals from Jackass Flats were compiled from data for sites J-12 and J-13, reported by David B. Wood (U.S. Geological Survey, written commun., 1993). Data for J-12 were reported by Claassen (1973, p. 25) for 1961-62 and recompiled from flowmeter readings beginning July 1980 supplied by Reynolds Electrical and Engineering Company (REECo). Data for J-13 were recompiled from flowmeter readings beginning November 1982 supplied by REECo. Ground water is known to have been pumped in Jackass Flats during years for which no data are available.

Withdrawals from Rock Valley are considered negligible on the basis of knowledge of historical activities in that area and discussions with NDWR.

Withdrawals from Ash Meadows Ground-Water Subbasin

Withdrawals from the part of the Amargosa Desert (excluding the Ash Meadows area) within the subbasin include withdrawals recompiled from ground-water pumpage inventories taken by NDWR for 1992 only. The pumpage inventories were for the entire Amargosa Desert hydrographic area. Data were not available to separate irrigation and domestic withdrawals within the subbasin from the reported total for the entire Amargosa Desert during earlier years.

Withdrawals from the Ash Meadows area of Amargosa Desert within this subbasin include withdrawals from 10 wells located in T. 17 S., R. 50 E., sec. 10 and 23; T. 18 S., R. 50 E, sec. 3; and T. 18 S., R. 51 E., sec. 7 and 8. Withdrawal data for 1969-71 are reported by Dudley and Larson (1976, p. 22). Withdrawals for 1972-82 were estimated by converting electrical-power consumption to pumpage on the basis of published data from Larson (1974a, p. 13-14; 1974b, p. 4-5; 1975, p. 9, 12), Hanes (1976, p. 13-14), Carson (1979, p. 19, 21; 1980, p. 14) and Westenburg (1993, p. 12), and on the basis of unpublished data in USGS files. Conversion factors to relate power consumption and pumpage were calculated for four wells that had corresponding power-consumption and discharge data for February through May in both 1972 and 1973. Conversion factors (4.10, 3.40, 2.58, and 2.29) for those four wells were calculated as measured discharge divided by concurrent power consumption. Withdrawals for the wells were approximated as: Pumpage in acre-feet=4.10, 3.40, 2.58, or 2.29 times power consumption in thousands of kilowatt hours. A conversion factor, 3.09 (an average of 4.10, 3.40, 2.58, and 2.29), was used to estimate withdrawals from wells with power-consumption data only. Withdrawals from wells with power-consumption data only were approximated as: Pumpage in acre-feet=3.09 times power consumption in thousands of kilowatt hours.

Withdrawals from Mercury Valley were compiled from data for MV-1 reported by David B. Wood (U.S. Geological Survey, written commun., 1993). Data were reported by Claassen (1973, p. 17) for 1962-71 and recompiled from REECo flowmeter readings beginning January 1983. Ground water is known to have been pumped in Mercury Valley during the years for which no data are available.

Ground-Water Quality Data

Ground-water samples were collected from springs and wells for water-quality analyses. Sample collection, processing, and analysis are described briefly in the following sections. Samples were collected after chemical stability was indicated by measurements of water temperature, specific conductance, and pH over time. Procedures and materials were used to reduce the potential of environmental contamination of samples. Specific chemical-stability criteria, sample-collection methods, bottle types, sample volume and filtration requirements, and sample-

preservation techniques are listed in unpublished USGS Technical Procedure HP-225, Rev. 1 (Richard J. La Camera, U.S. Geological Survey, written commun., 1992). Refer also to the section "Quality Assurance."

Sample Collection and Processing

Water-quality samples were collected by USGS-EMP using three general methods. Water was collected as close to its source as possible. Samples were collected by submerging a bladder pump near the spring orifice at sites AM-1a, AM-5a, and AM-8, or about 10 ft below the water surface at site AM-4. Grab samples were collected at sites AM-2, DV-1, and DV-2, where a bladder pump could not be used. All other samples were collected directly from the pump discharge at wells equipped with submersible pumps.

Sample bottles were filled with unfiltered water directly from pump discharges or by grab-sampling. Filtered samples were obtained by compositing unfiltered water in a thoroughly rinsed container, and passing the water through a 0.45-micrometer pore-size filter. Sterile bottles used for bacteriological analyses were filled directly from pump discharges or by grab-sampling.

Samples were shipped to the USGS National Water-Quality Laboratory, Arvada, Colo., for analyses. Samples were shipped generally within 3 days of collection, except for radon samples, which were shipped within 24 hours of collection.

Field and Laboratory Analyses

USGS-EMP measured water temperature, specific conductance, pH, dissolved oxygen, alkalinity, bicarbonate, and carbonate onsite. Equipment for measuring these parameters was calibrated in the field, recalibrated onsite prior to sampling, and checked for proper operation after measurements. Samples for determination of total coliform bacteria were collected, incubated, and enumerated in the field by USGS-EMP. Other physical, inorganic, radiochemical, and organic properties were determined at the USGS National Water-Quality Laboratory. Detailed procedures for field water-quality measurements and equipment calibrations, and documentation of laboratory analytical methods, are discussed in unpublished USGS Technical Procedure HP-225, Rev. 1 (Richard J. La Camera, U.S. Geological Survey, written commun., 1992). Refer also to the section "Quality Assurance."

Quality Assurance

Stringent quality assurance is required for all work pertaining to Yucca Mountain studies to establish adequate confidence in the reliability of data collection, processing, and reporting. In the context of this data-collection program, quality assurance is defined as all planned or systematic actions designed to provide data and records of a desired quality. A variety of quality-control procedures, which are the operational techniques and activities used to meet the required quality objectives, have been implemented.

The numerous management and administrative procedures that control processing, record keeping, and reporting of data by USGS-EMP are not detailed in this report. Generally, data such as location, date and time of measurements, and field measurements are recorded onsite. Those data are reviewed for completeness and accuracy, stored in project files and data bases, and are subsequently included in publications by the USGS. Following publication, data are stored in a comprehensive record-keeping facility maintained by contractors for USDOE.

In addition to standard USGS practices and the procedures previously described, formal unpublished technical procedures associated with the Yucca Mountain Site Characterization Project have been developed for the collection of water-level, discharge, and water-quality data. Those technical procedures include equipment tests and calibrations, in addition to measurement techniques, to ensure that necessary and expected precision and accuracy are attained. The principal technical procedures that control the collection of data by project personnel are:

- HP-23, Revision 2: Collection and field analysis of ground-water samples from saturated zone (William C. Steinkampf, U.S. Geological Survey, written commun., 1991).

- HP-54, Revision 1: Water-flow measurements using 90 degree v-notch weirs, flumes, and barrels (Craig L. Westenburg, U.S. Geological Survey, written commun., 1992).

- HP-60, Revision 2: Method for monitoring water-level changes using pressure transducers and pressure transmitters (Grady M. O'Brien, U.S. Geological Survey, written commun., 1992).

- HP-61, Revision 0: Use of hand-held steel tapes (in vertical boreholes) (John B. Czarnecki, U.S. Geological Survey, written commun., 1989).

- HP-99, Revision 1: Instruction for operation of a well sounder for measuring water levels (John B. Czarnecki, U.S. Geological Survey, written commun., 1990).

- HP-166, Revision 1: Stream discharge measurements using a pygmy current meter (David A. Beck, U.S. Geological Survey, written commun., 1992).

- HP-225, Revision 1: Methods used to collect and analyze ground- and surface-water samples (Richard J. La Camera, U.S. Geological Survey, written commun., 1992).

Copies of these technical procedures are available from:

Hydrologic Investigations Program
Yucca Mountain Project Branch
U.S. Geological Survey
Box 25046, MS 421
Federal Center
Denver, CO 80225-0046

PRESENTATION OF GROUND-WATER DATA

Tables 2-12 list ground-water data that have been collected and compiled in the Yucca Mountain region as part of this study; they are included at the back of report. Data through 1992 generally consist of all measurements from the earliest available to the most recent available. Figures 1-11 are hydrographs and other graphical representations of selected data from the tables.

Pumping or injecting water into a well or nearby well may cause transient water levels that differ from long-term or sustained ground-water levels. Observations about such activities (noted by field personnel during site visits) and corresponding water levels, which may represent transient conditions, are included in the data tables. Those data, however, are excluded from the figures showing variations in water level over time.

Table 2 lists periodic measurements of depth to water (in feet below land surface) and water-level altitude at 36 sites through 1992. Periodically collected data generally are from manual onsite measurements of depth to water. However, data at site AM-4 (Devils Hole), reported as data source "NPS," are monthly average water levels, and are based on daily water levels recorded by instrumentation at the site. Data representing monthly average water levels are generally within 0.2 ft of the periodic measurement made by USGS for a given month.

Data collected by other agencies or programs are subject to revision upon further review by that agency or program. Some data included in table 2 may differ from previously published data due to rounding differences or more recent information.

Figures 1-3 show water-level altitudes through 1992 (based on periodically collected data listed in table 2) at 12 selected sites that are spatially distributed throughout much of the study area. Data for wells with primary contributing units of carbonate rock, volcanic rock, and valley fill are presented. **Figure 4** shows water-level altitudes (based on discrete measurements listed in table 2) at site AM-4 from 1962 through 1992.

Tables 3 and 4 list daily mean water levels during 1992 (in feet below land surface) for sites JF-3 and AD-6, respectively. The daily mean water levels are based on continually collected data at the sites. Continually collected data are measurements of water levels recorded by instrumentation at 15-minute intervals.

Figures 5 and 6 show daily mean depth to water (in feet below land surface) and water-level altitude based on continually collected data listed in tables 3 and 4 for sites JF-3 and AD-6, respectively.

Table 5 lists periodic measurements of ground-water discharge at six sites through 1992. The data for site DV-1 (Texas Spring) reported with a NPS data source represent monthly average discharge. The listed averages are generally greater than the periodic measurements made by USGS for the same months. Differences between monthly average and measured discharges ranged from 20 to 60 gal/min and averaged about 40 gal/min. On the basis of daily stage recorded in the flume, variations in springflow during a given month would probably not substantially contribute to these reported differences. According to the U.S. Bureau of Reclamation (1984, p. 43-48, 125), inaccuracies in discharge measurements can result from unavoidably poor current-meter measurement conditions at a site, slightly turbulent and uneven flow within a flume, and small departures in flume dimensions from the standard dimensions used to relate stage to discharge.

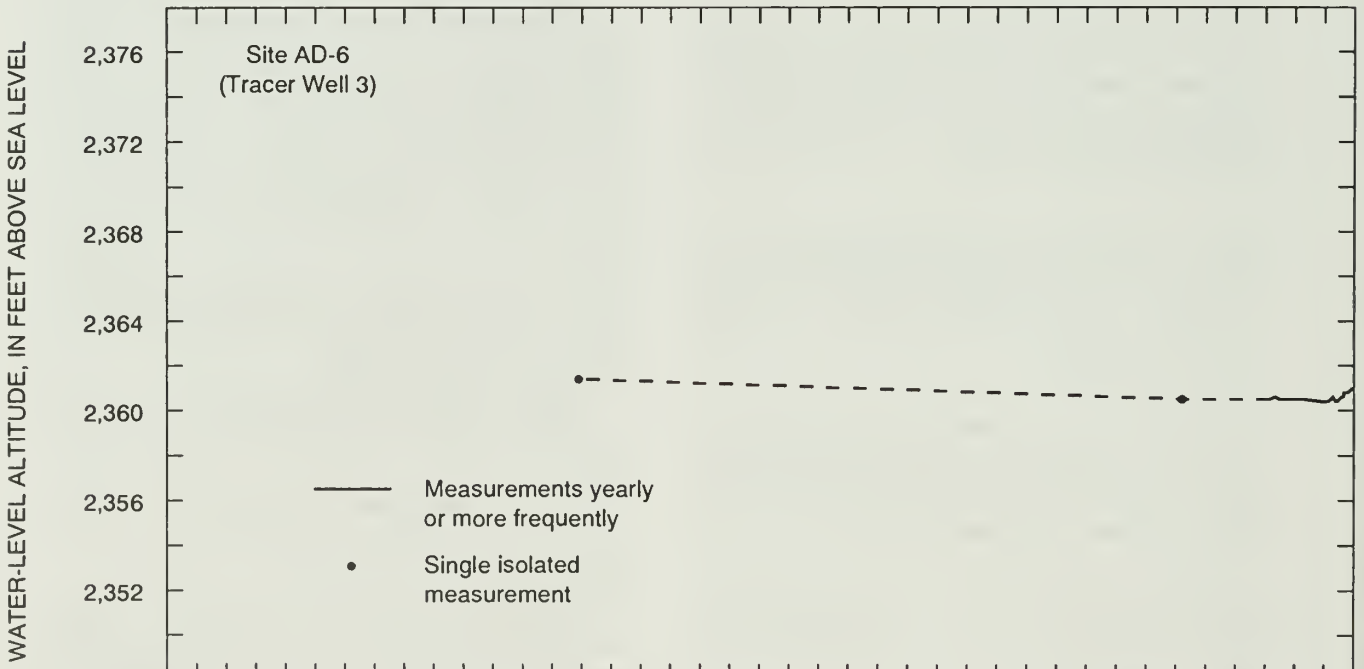
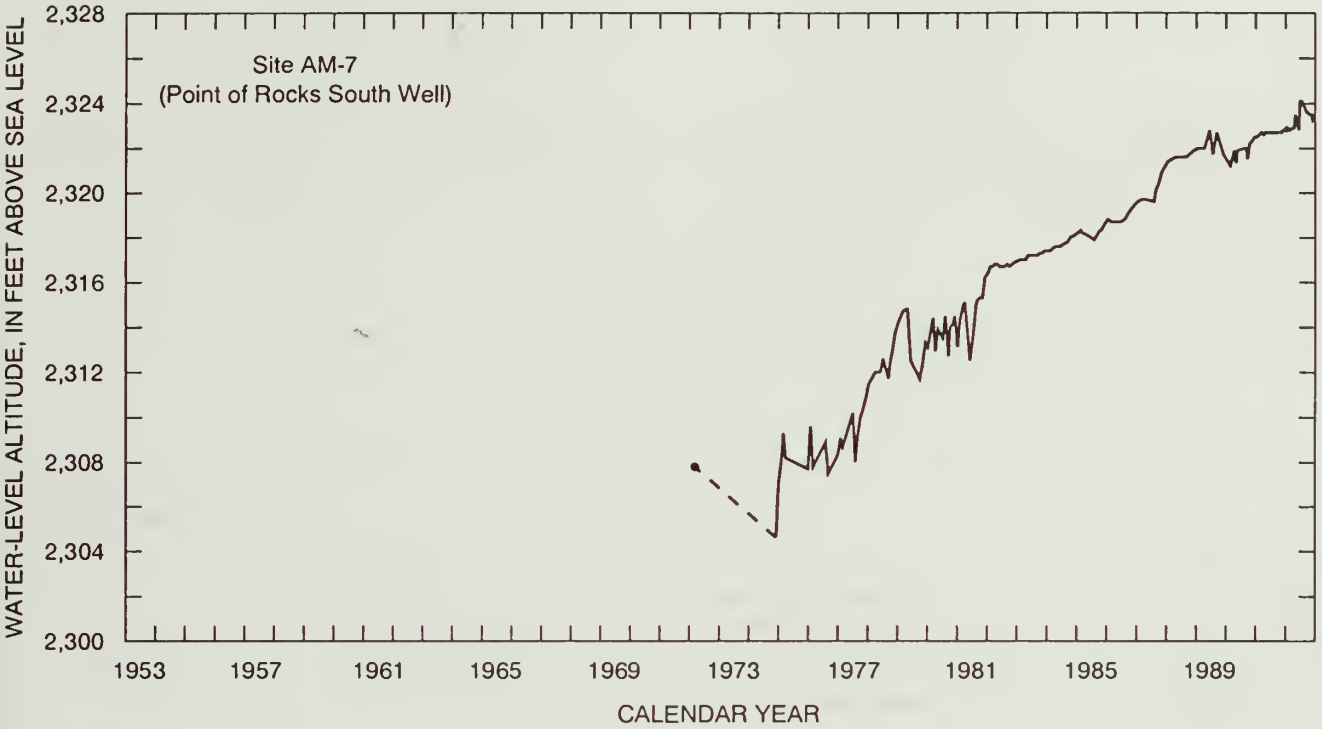


Figure 1. Water-level altitude through 1992 for selected wells at which primary contributing units are carbonate rock. Lines connect discrete data listed in table 2, and are dashed where measurements were not available for consecutive calendar years. Data noted with water-level status of P, R, S, and I have been excluded, as those data may represent transient conditions at a site.



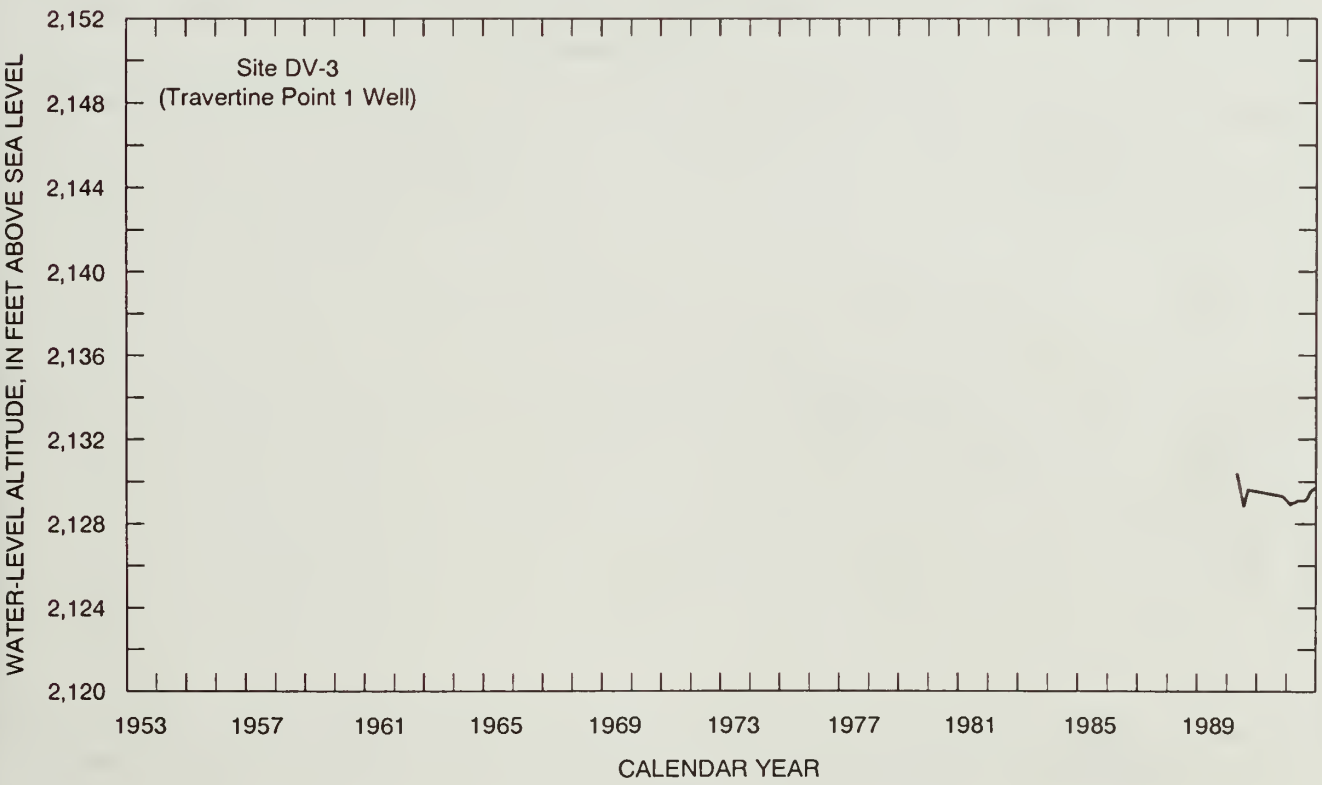
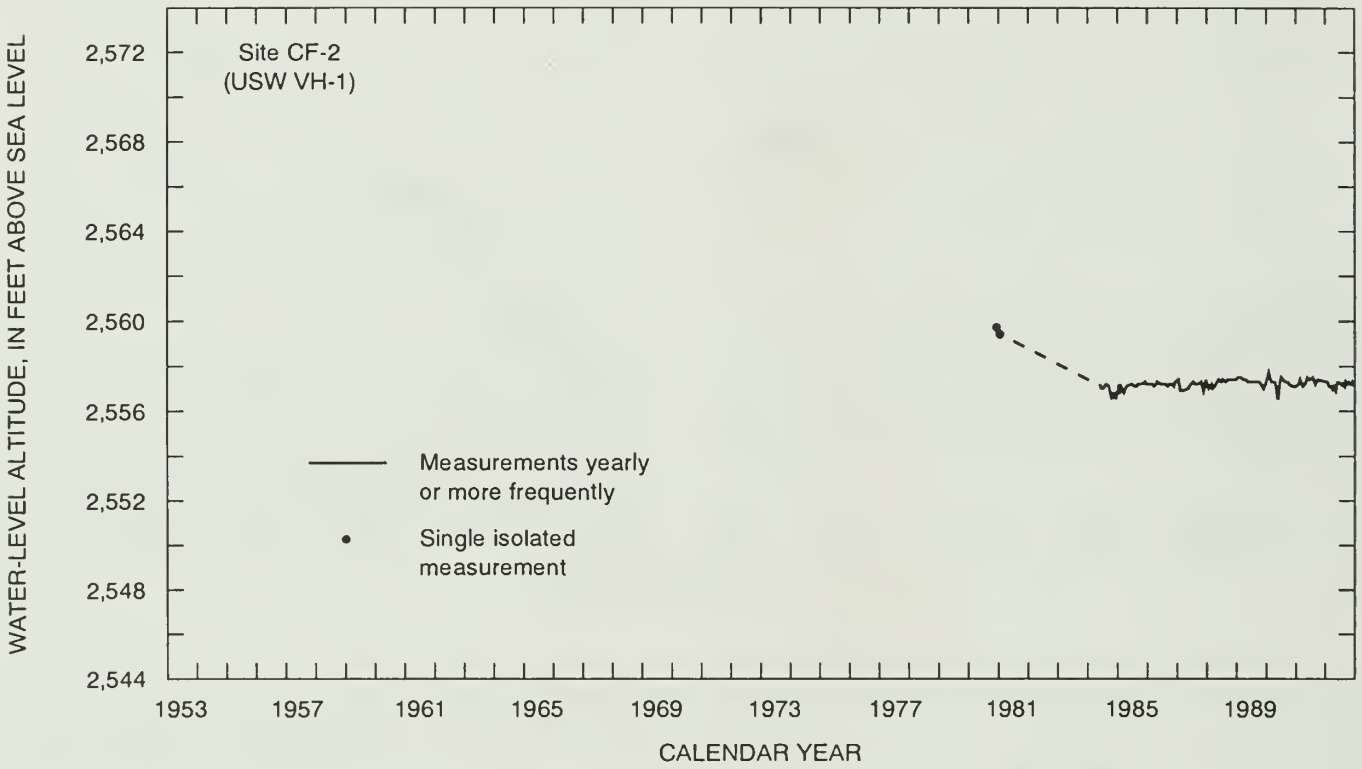


Figure 1. Continued.



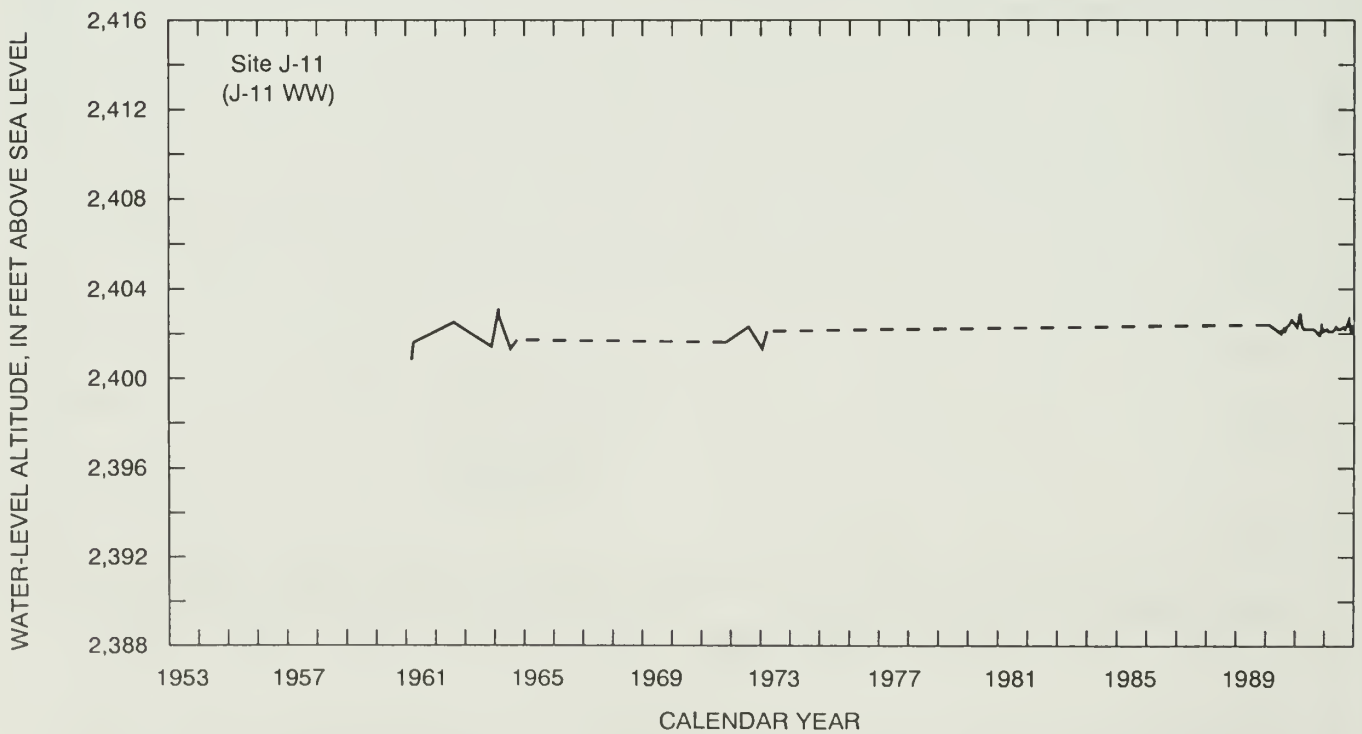
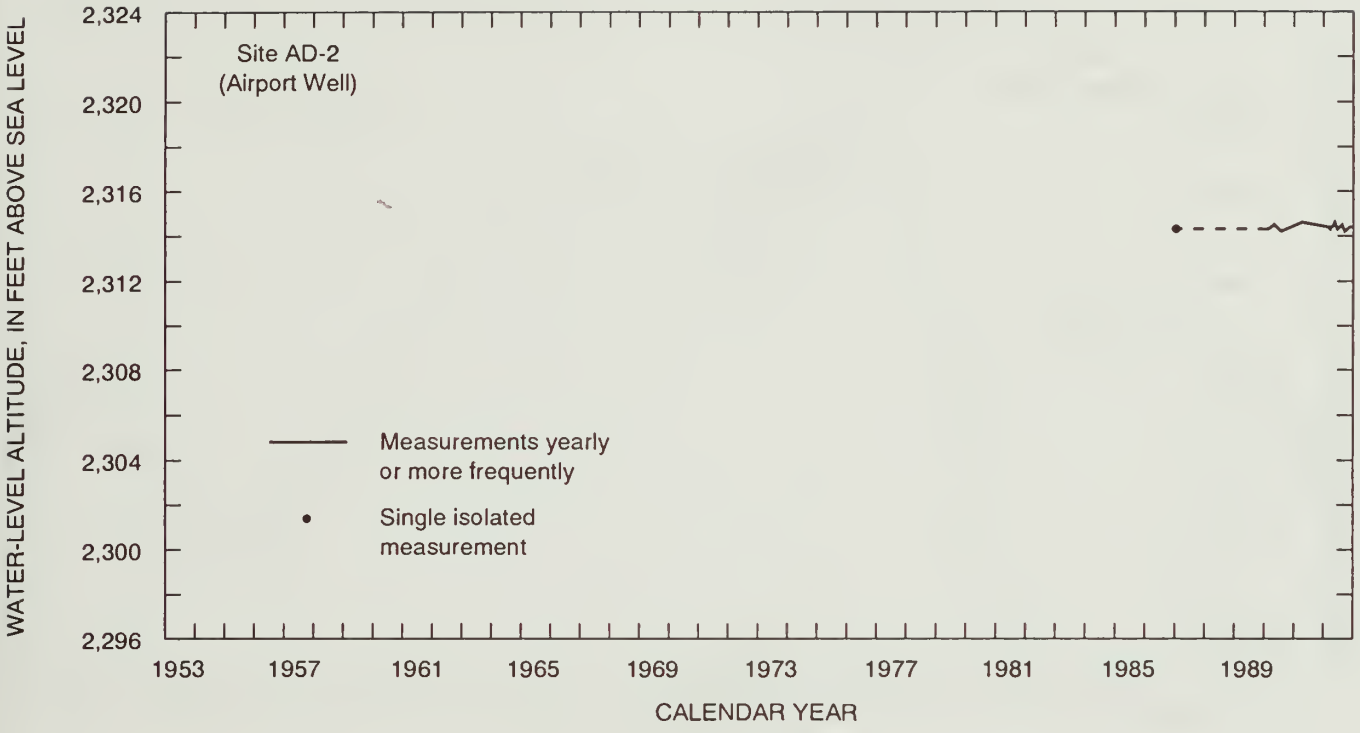


Figure 2 Water-level altitude through 1992 for selected wells at which primary contributing units are volcanic rock. Lines connect discrete data listed in table 2, and are dashed where measurements were not available for consecutive calendar years.



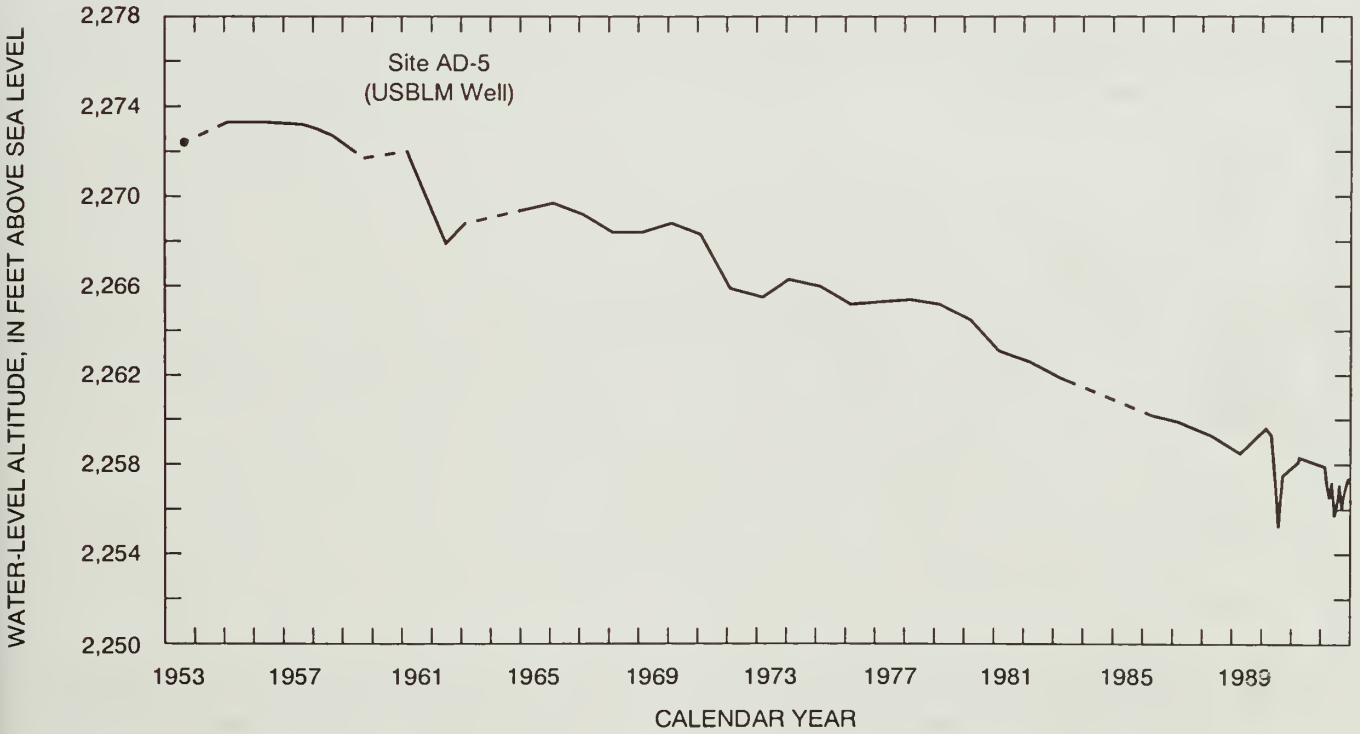
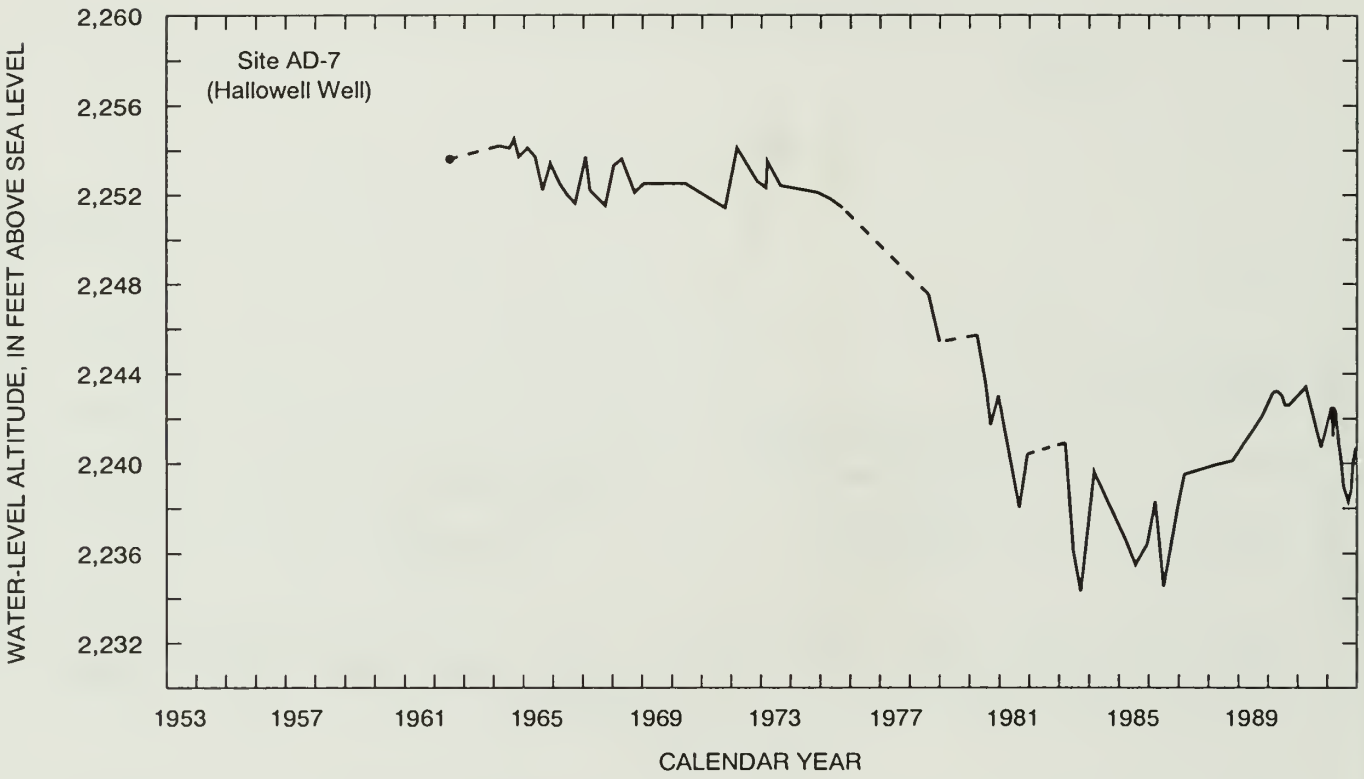


Figure 3. Water-level altitude through 1992 for selected wells at which primary contributing units are valley fill. Lines connect discrete data listed in table 2, and are dashed where measurements were not available for consecutive calendar years. Data noted with water-level status of P, R, S, and I have been excluded, as those data may represent transient conditions at a site.



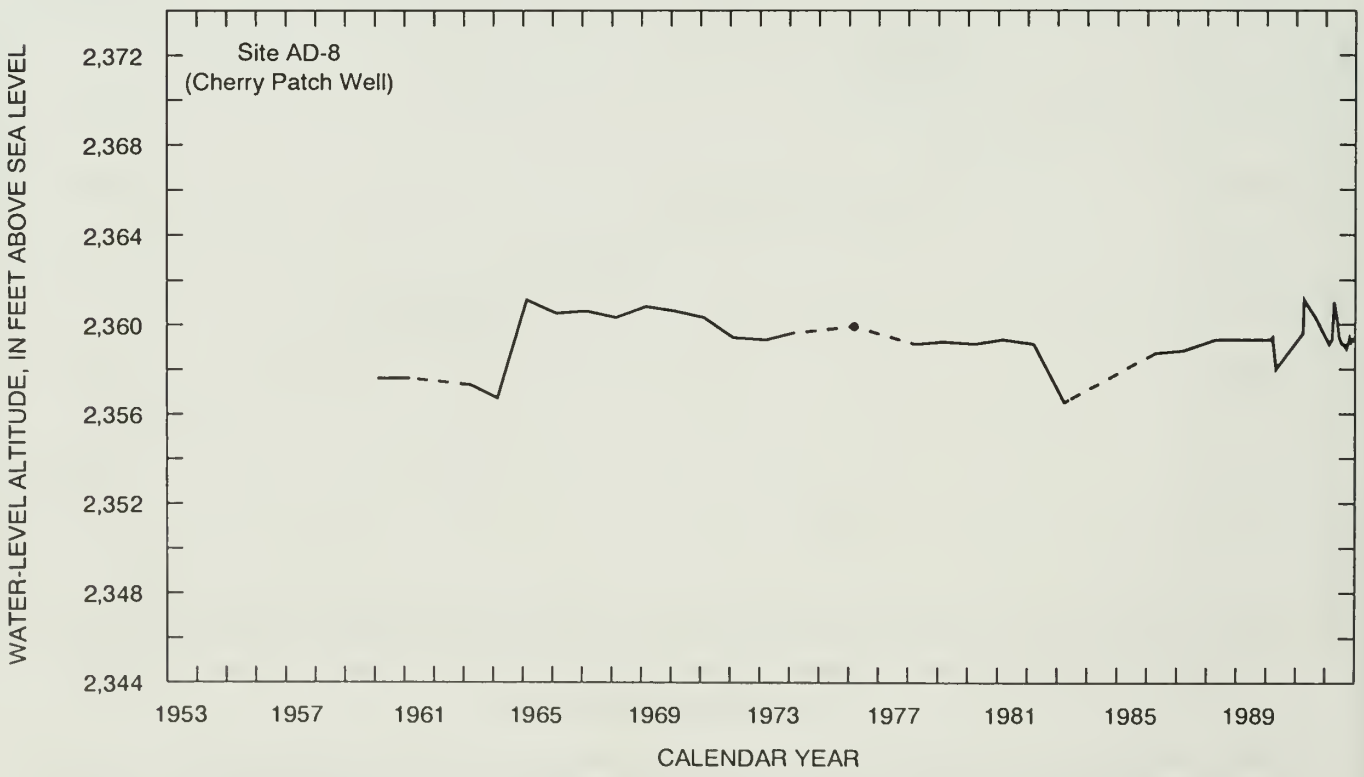
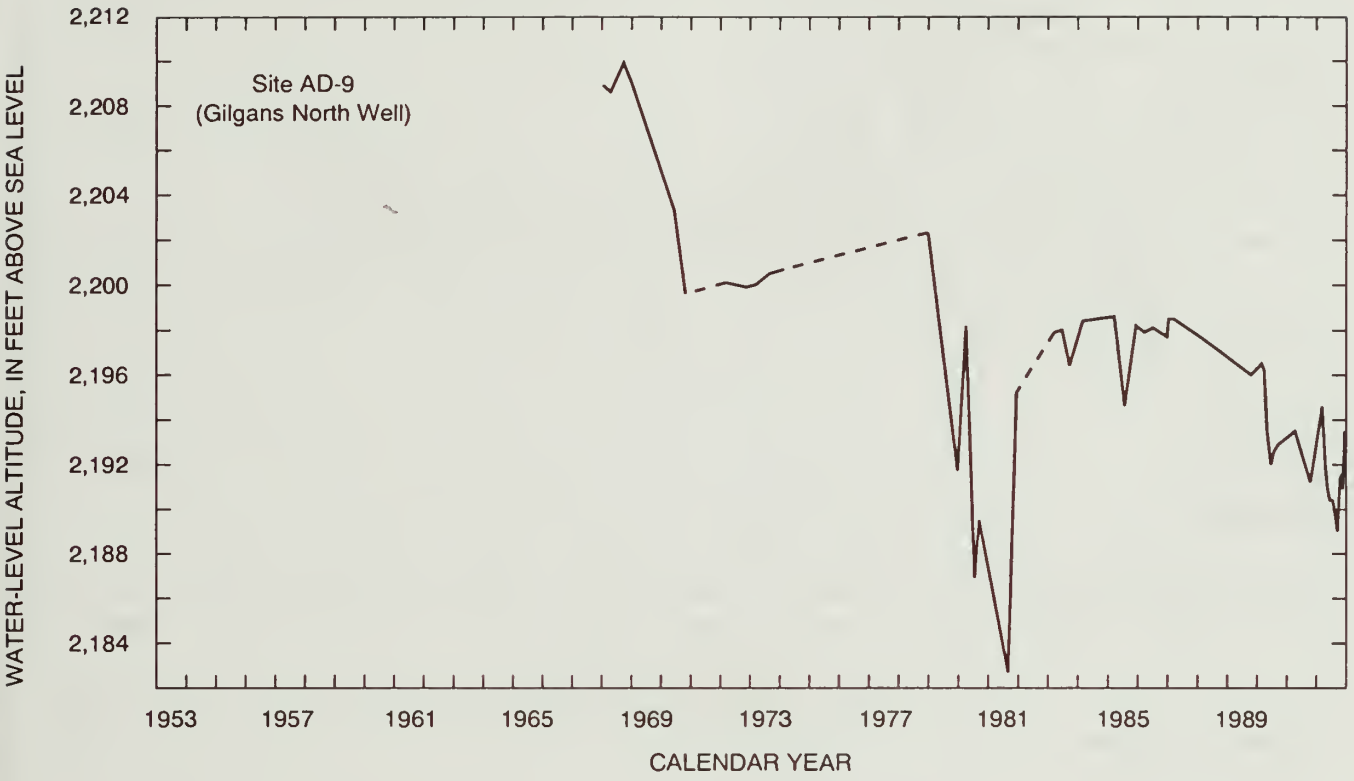


Figure 3 Continued.



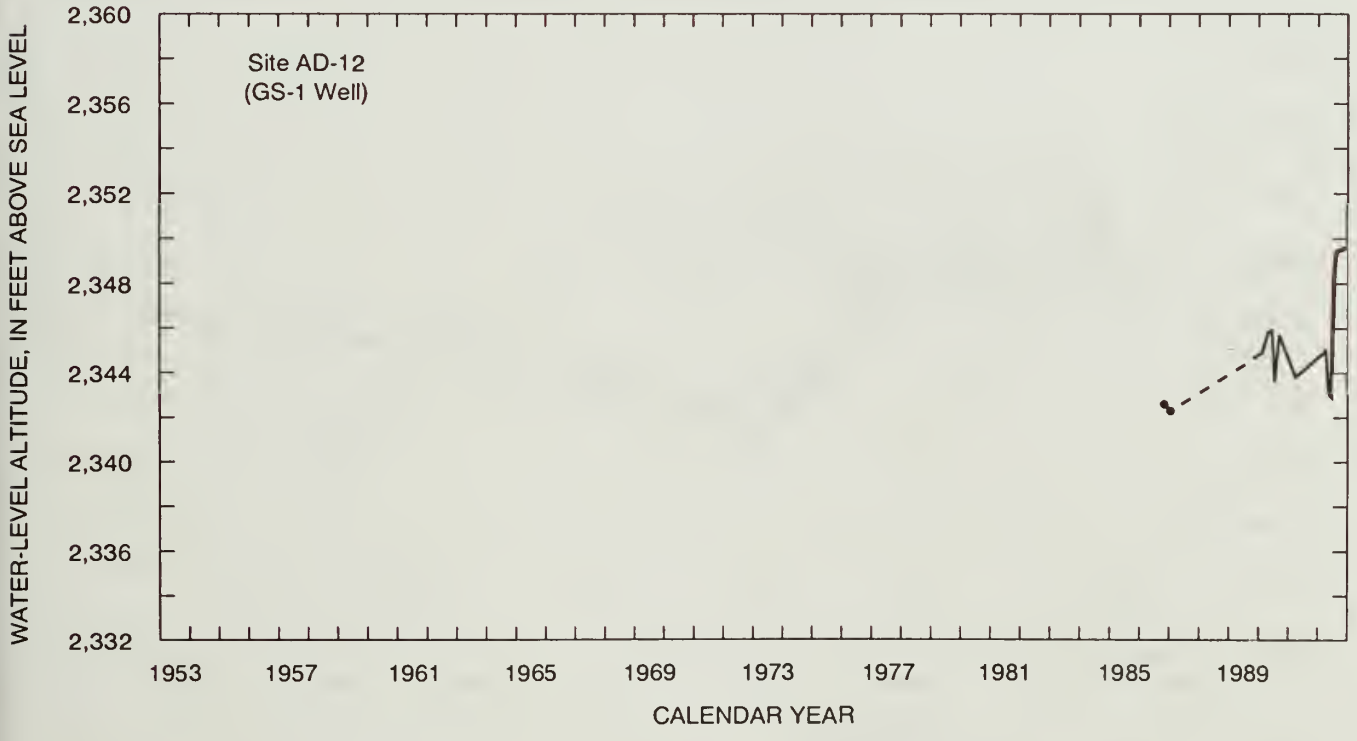


Figure 3. Continued

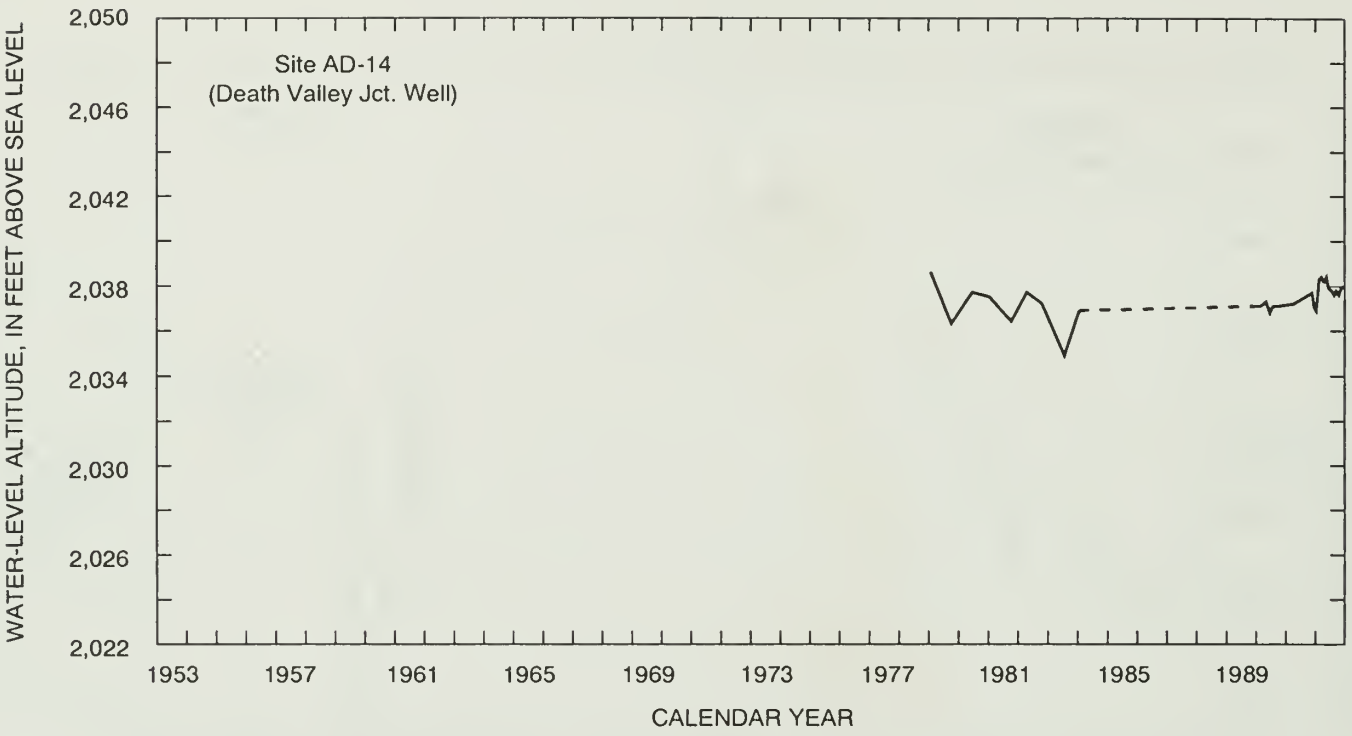


Figure 3. Continued.

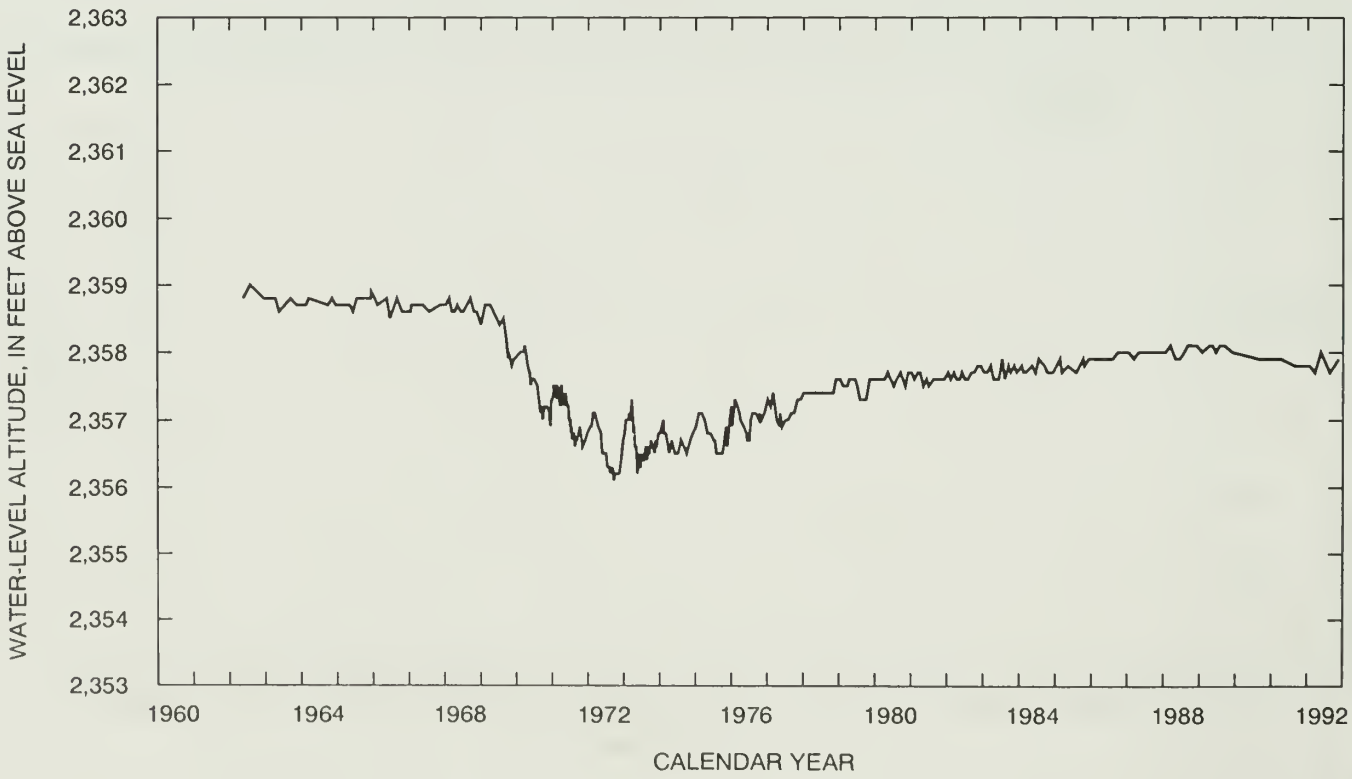


Figure 4. Water-level altitude for site AM-4 (Devils Hole) from 1962 through 1992. Solid line connects discrete measurements listed in table 2.

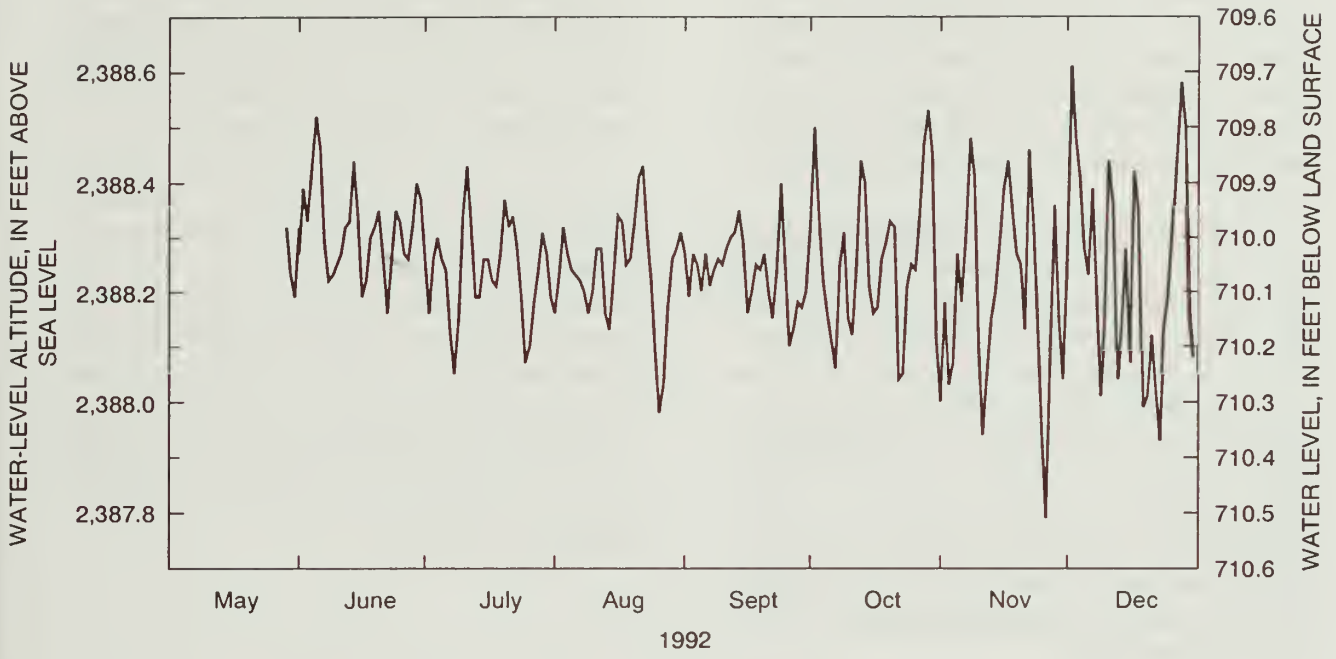


Figure 5. Daily mean water level in well JF-3, May through December 1992.

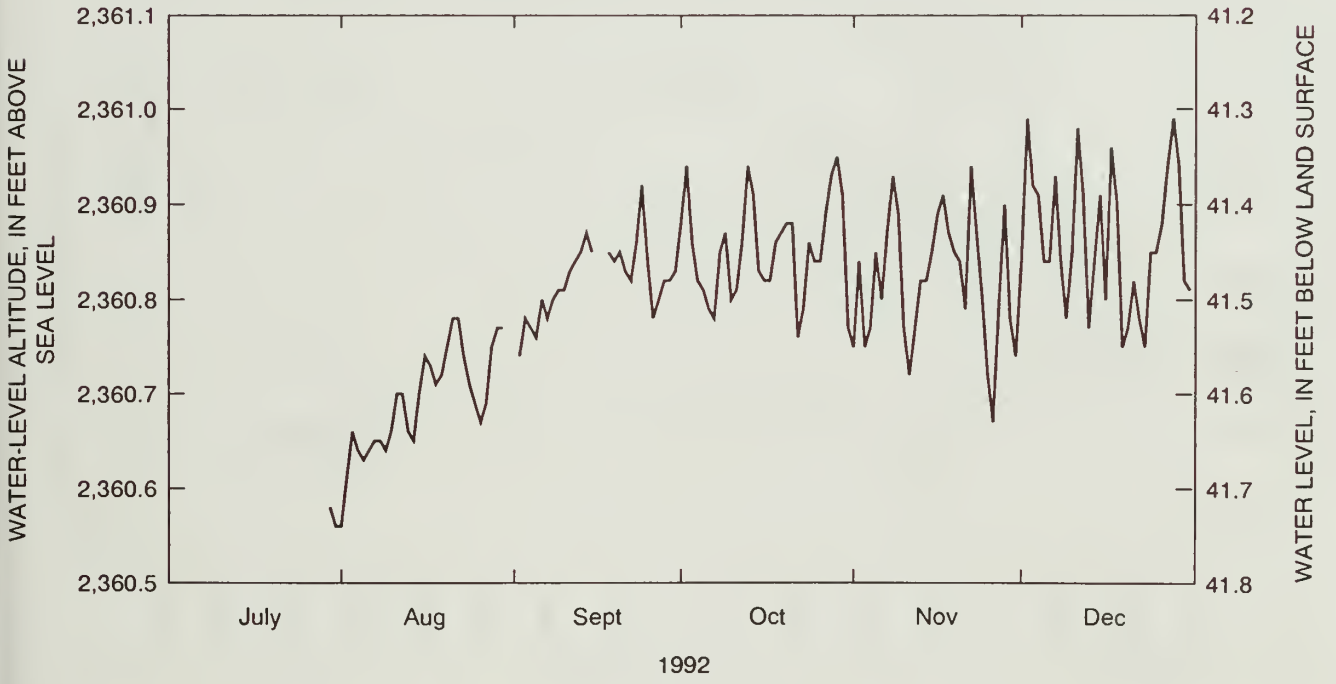


Figure 6. Daily mean water level in well AD-6, July through December 1992.

Figure 7 shows ground-water discharge through 1992 at sites AM-1a, AM-5a, and AM-8, based on periodically collected data listed in table 5. **Figures 8 and 9** show ground-water discharge through 1992 at sites AM-2 and DV-2, and DV-1, respectively, based on data listed in table 5.

Table 6 contains a compilation of estimated annual ground-water withdrawals from wells in the Yucca Mountain region through 1992. Estimated annual ground-water withdrawals are based solely on available data. Estimates for some years, therefore, reflect a lack of information for an entire area or for pumping wells within an area and underestimate total withdrawals. Ground-water withdrawals, in millions of gallons and in acre-feet, from water-supply wells are grouped by ground-water subbasin and totaled by hydrographic area (or part of a hydrographic area) for individual calendar years.

Figures 10 and 11 show estimates of annual ground-water withdrawals, based on data listed in table 12 for selected areas within the Alkali Flat-Furnace Creek Ranch and Ash Meadows ground-water subbasins, respectively, through 1992.

Tables 7-12 list data on ground-water quality collected at 19 sites during 1990-92. **Table 7** lists water-quality properties, and concentrations of total coliform bacteria and major and trace inorganic constituents. **Table 8** lists concentrations of nitrogen and phosphorus species and total organic carbon. **Table 9** lists radiochemical and stable-isotope data. **Tables 10 and 11** list concentrations of volatile and semi-volatile organic industrial compounds, respectively. **Table 12** lists concentrations of organochlorine and organophosphorus pesticides.

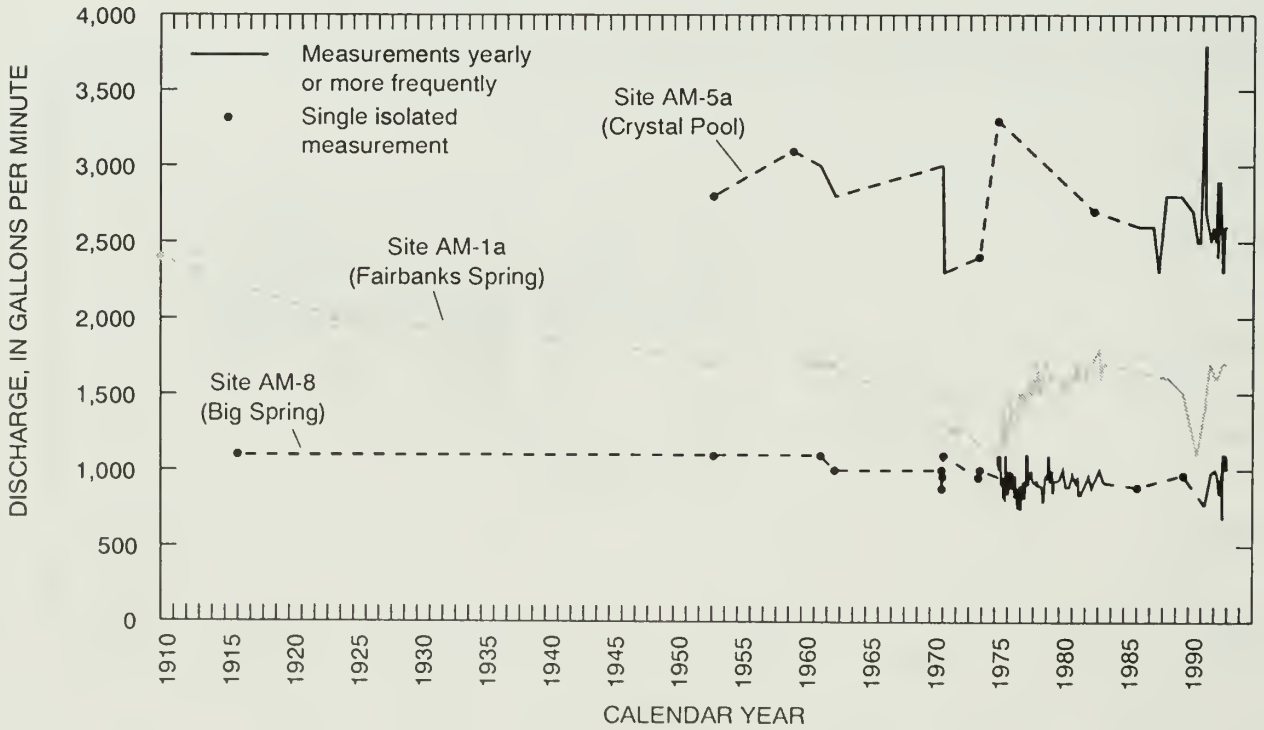


Figure 7. Discharge at sites AM-1a (Fairbanks Spring), AM-5a (Crystal Pool), and AM-8 (Big Spring) through 1992. Lines connect discrete data listed in table 5, and are dashed where measurements were not available for consecutive calendar years

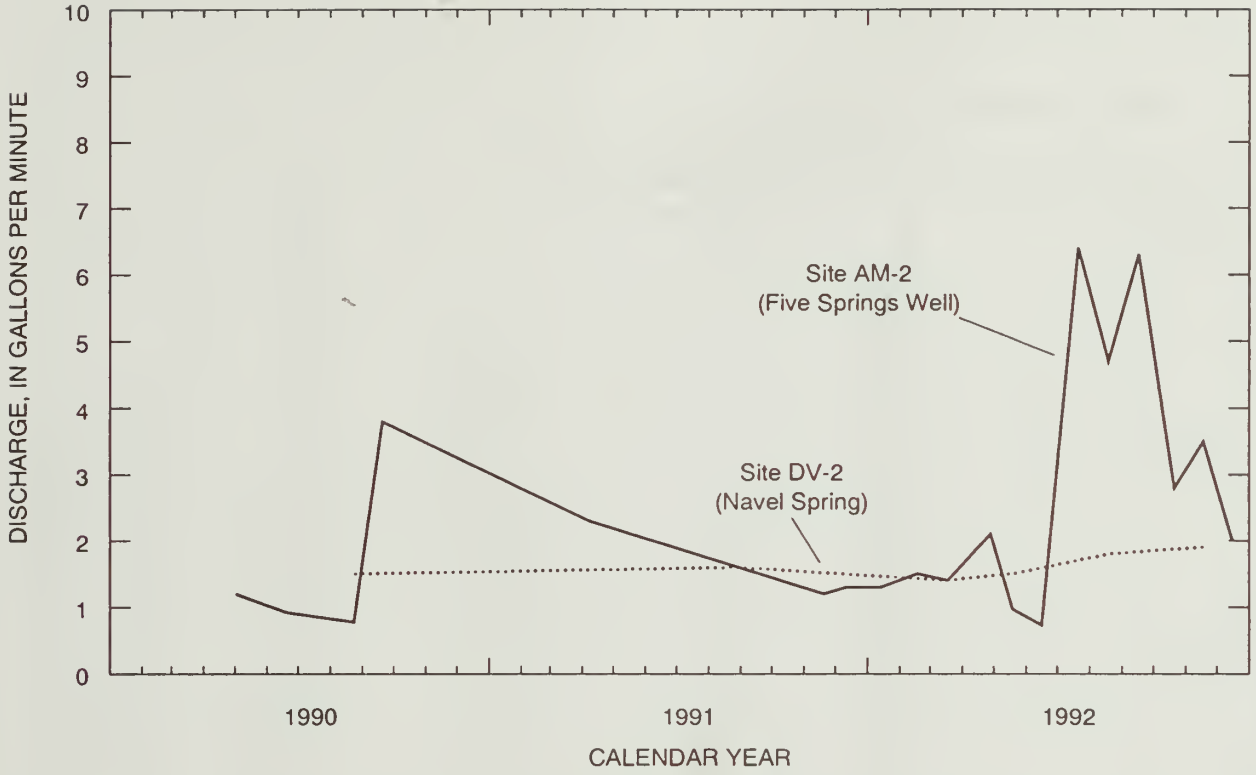


Figure 8. Discharge at sites AM-2 (Five Springs Well) and DV-2 (Navel Spring), 1990 through 1992. Lines connect discrete data listed in table 5.

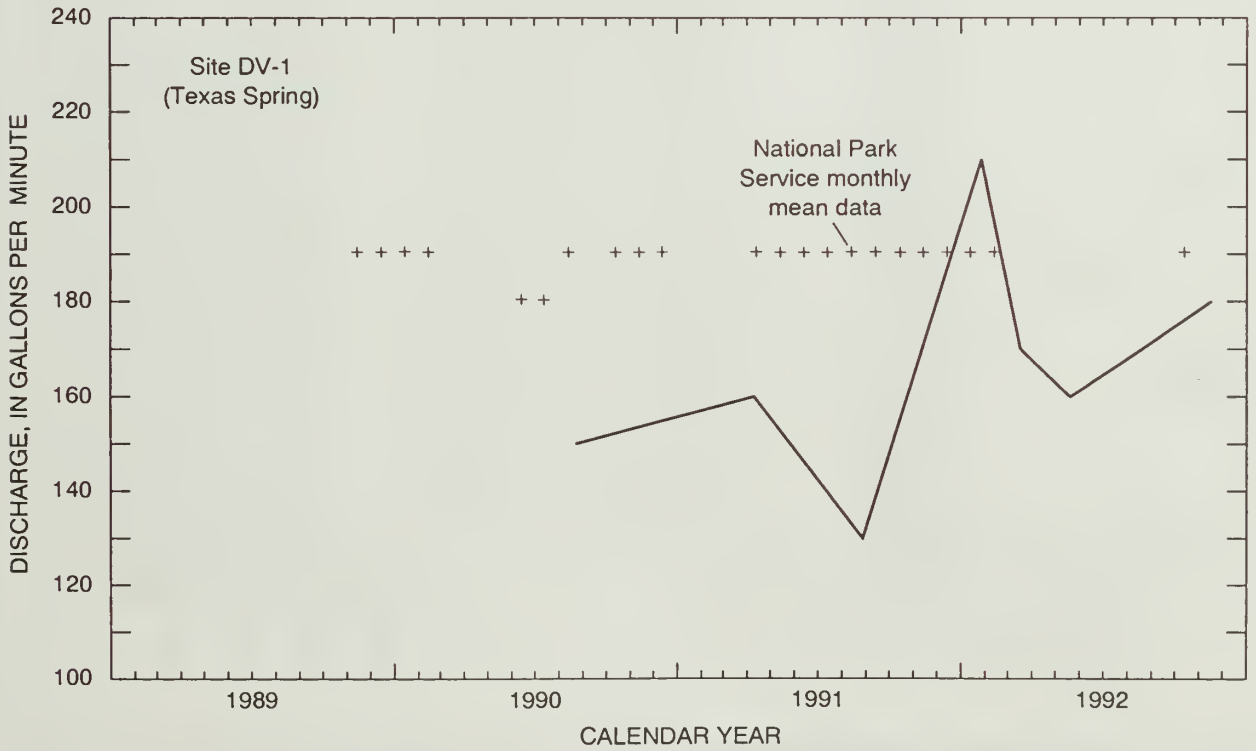


Figure 9. Discharge at site DV-1 (Texas Spring), 1989 through 1992. Solid line connects discrete measurements listed in table 5.

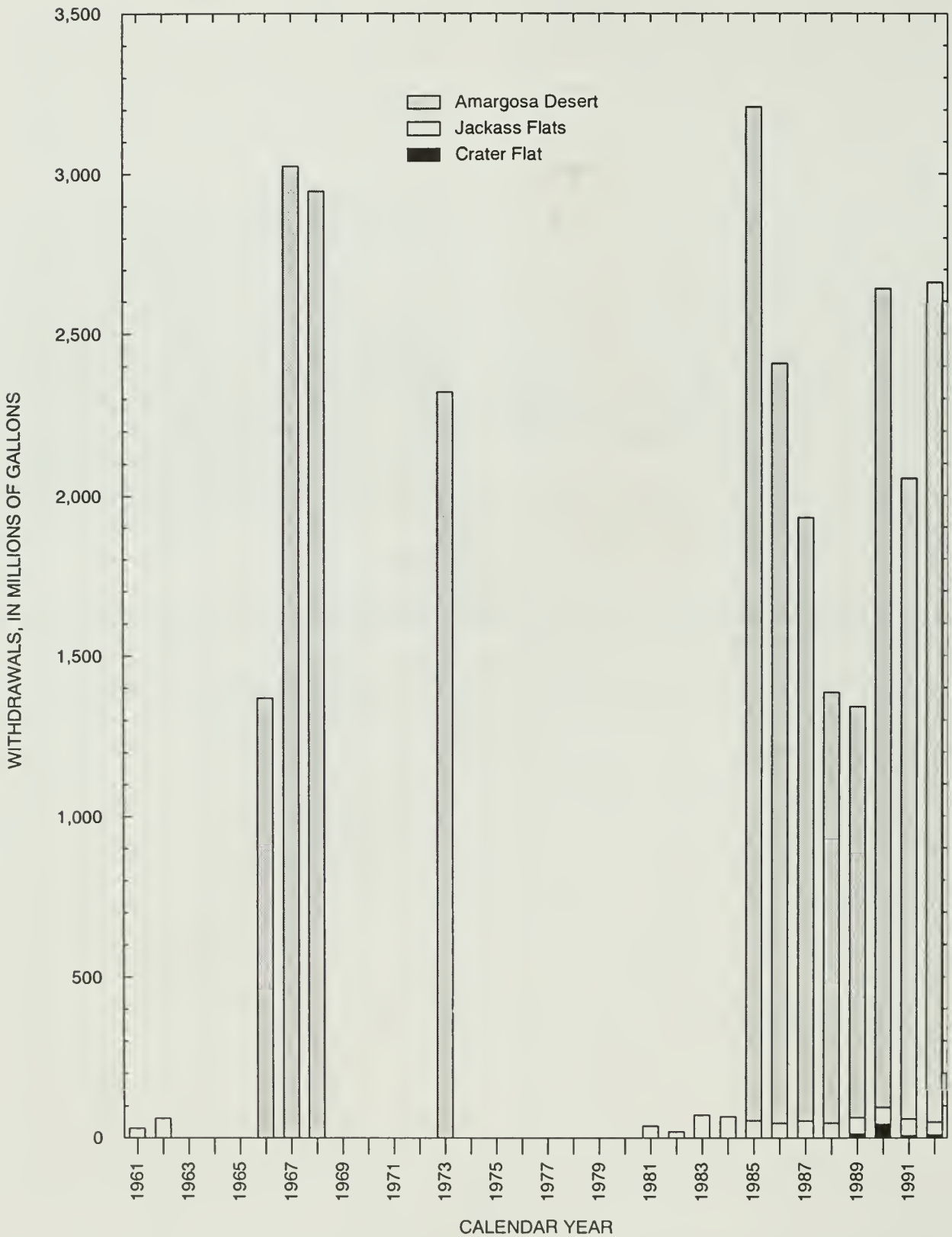


Figure 10. Available estimates of annual ground-water withdrawals for selected areas within Alkali Flat-Furnace Creek Ranch ground-water subbasin, 1961 through 1992. In each hydrographic area, ground water may have been withdrawn in years for which no estimates are available and no bars are shown. Total bar height equals sum of withdrawals from all areas within subbasin for given year.

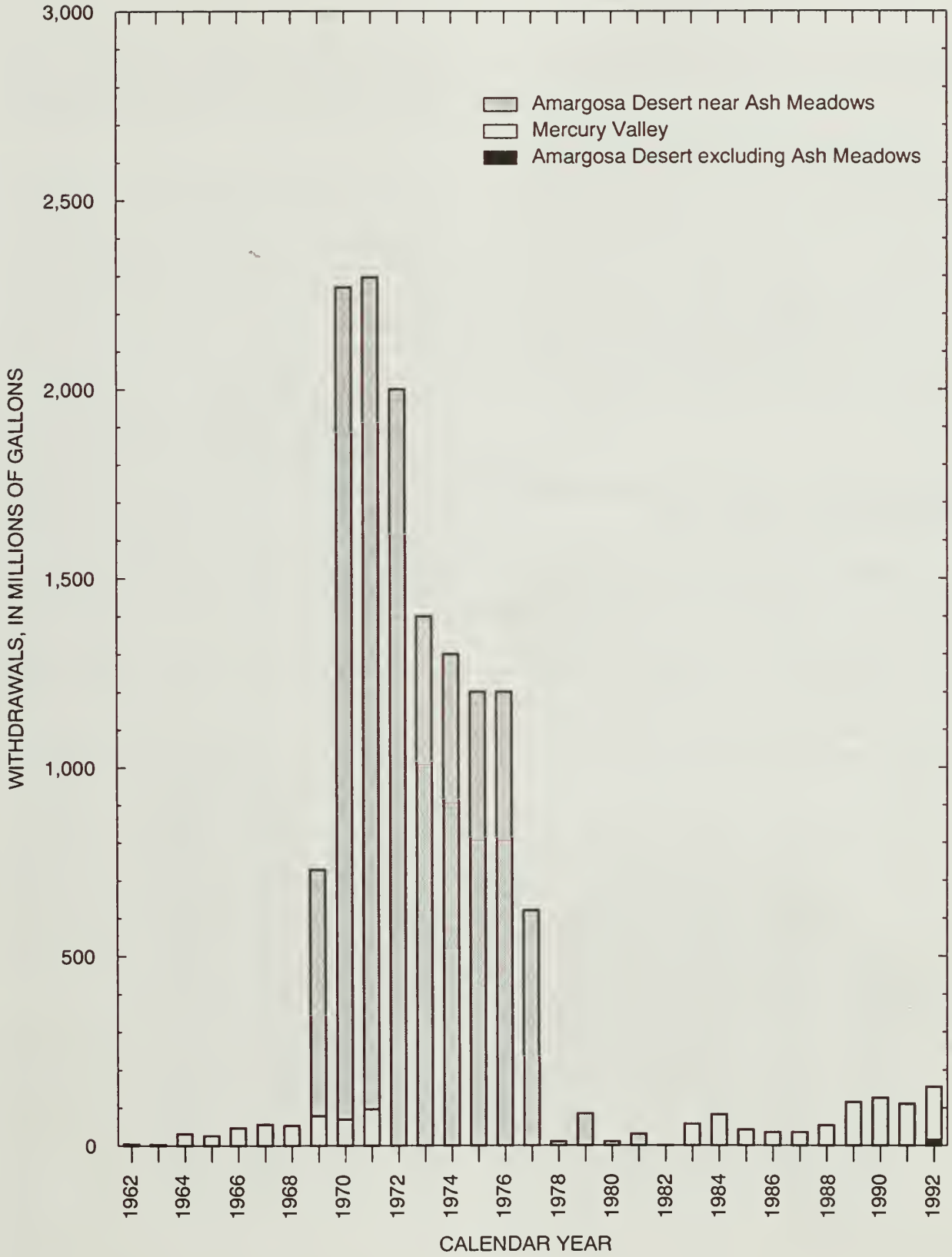


Figure 11. Available estimates of annual ground-water withdrawals for selected areas within Ash Meadows ground-water subbasin, 1962 through 1992. In each hydrographic area, ground water may have been withdrawn in years for which no estimates are available and no bars are shown. Total bar height equals sum of withdrawals from all areas within subbasin for given year.

DISCUSSION OF GROUND-WATER DATA

The following sections discuss data on (1) ground-water levels and ground-water withdrawals in Jackass Flats and (2) ground-water quality in the study area. In Jackass Flats, ground water is withdrawn to support various USDOE activities (including site characterization); if those withdrawals affect ground-water levels, the effects may be detected in Jackass Flats before they are detected elsewhere in the region. The data on ground-water quality are discussed to characterize baseline conditions throughout the region.

Ground-Water Levels and Ground-Water Withdrawals in Jackass Flats

Figures 12 through 14 show water-level altitudes in six wells and estimated annual ground-water withdrawals in Jackass Flats. Water-level altitudes are based on periodic water-level measurements listed in table 2. Ground-water withdrawals from 1983 through 1992 are based on data listed in table 12, and consist of combined pumpage from water-supply wells J-13 and J-12.

Data on ground-water withdrawals prior to 1983, which generally represent only the withdrawals from well J-12, rather than total withdrawals from Jackass Flats, are excluded from the figures. For greater consistency and comparability of data on water-level altitudes, water levels in wells J-13 and JF-3 that may have been affected by pumping or recent pumping of the well are excluded from figure 14. Similarly, one water-level measurement in well JF-2a (on November 7, 1983) that may represent a transient condition at the site is not included in figure 13.

Table 13 lists selected statistics for water-level altitudes in Jackass Flats. Data from wells JF-1, JF-2, JF-2a, J-13, J-11, and J-12, are summarized for a selected baseline period prior to 1992 and for 1992. A summary of water-level altitudes in well JF-3 for 1992 is listed also. The table shows the number of measurements, the minimum, maximum, and median water-level altitudes, and the average deviation of measured water-level altitudes from the median for each period. Median water-level values represent an average ground-water condition at a particular site.

Average deviation indicates the extent to which the individual measurements in a specific time period are dispersed about the median value. It is calculated by summing the absolute differences between individual measurements and the median, then dividing that sum by the number of individual measurements. The average deviation represents the precision with which the median indicates an average value for withdrawals or water-level measurements during the period.

To minimize effects of variability in measurement frequency on medians calculated for the period prior to 1992, the selection of a baseline period prior to 1992 for each site was generally based on (1) the maximum number of consecutive years (including 1991) for which water-level measurements are available and (2) consecutive years containing approximately similar frequencies of water-level measurement. For consistency, the baseline period selected at instrumented wells JF-2 and JF-2a was the period following installation of continual recorders.

Median annual ground-water withdrawal in Jackass Flats was about 52 Mgal/yr for the period 1983 through 1991. The average deviation for that period is 5.5 Mgal. Median withdrawals were about 68 Mgal/yr for the period 1983 and 1984, and decreased to about 51 Mgal/yr for 1985 through 1991. Total 1992 withdrawals in Jackass Flats were about 39 Mgal, representing a decrease of about 13 Mgal as compared with the median withdrawal for 1983 through 1991.

In water-supply wells J-13 and J-12, median water-level altitudes were, respectively, 2,390.0 and 2,388.3 ft above sea level during the baseline period prior to 1992. Median water-level altitude in well J-13 was 2,389.9 ft above sea level during 1992. The decrease of 0.1 ft between median water levels during the two periods at well J-13 is less than the precision of the median for the baseline period prior to 1992 and equal to that for 1992 (as indicated by the average deviations for the two periods). The median water-level altitude in well J-12 during 1992 was identical to that for the baseline period prior to 1992.

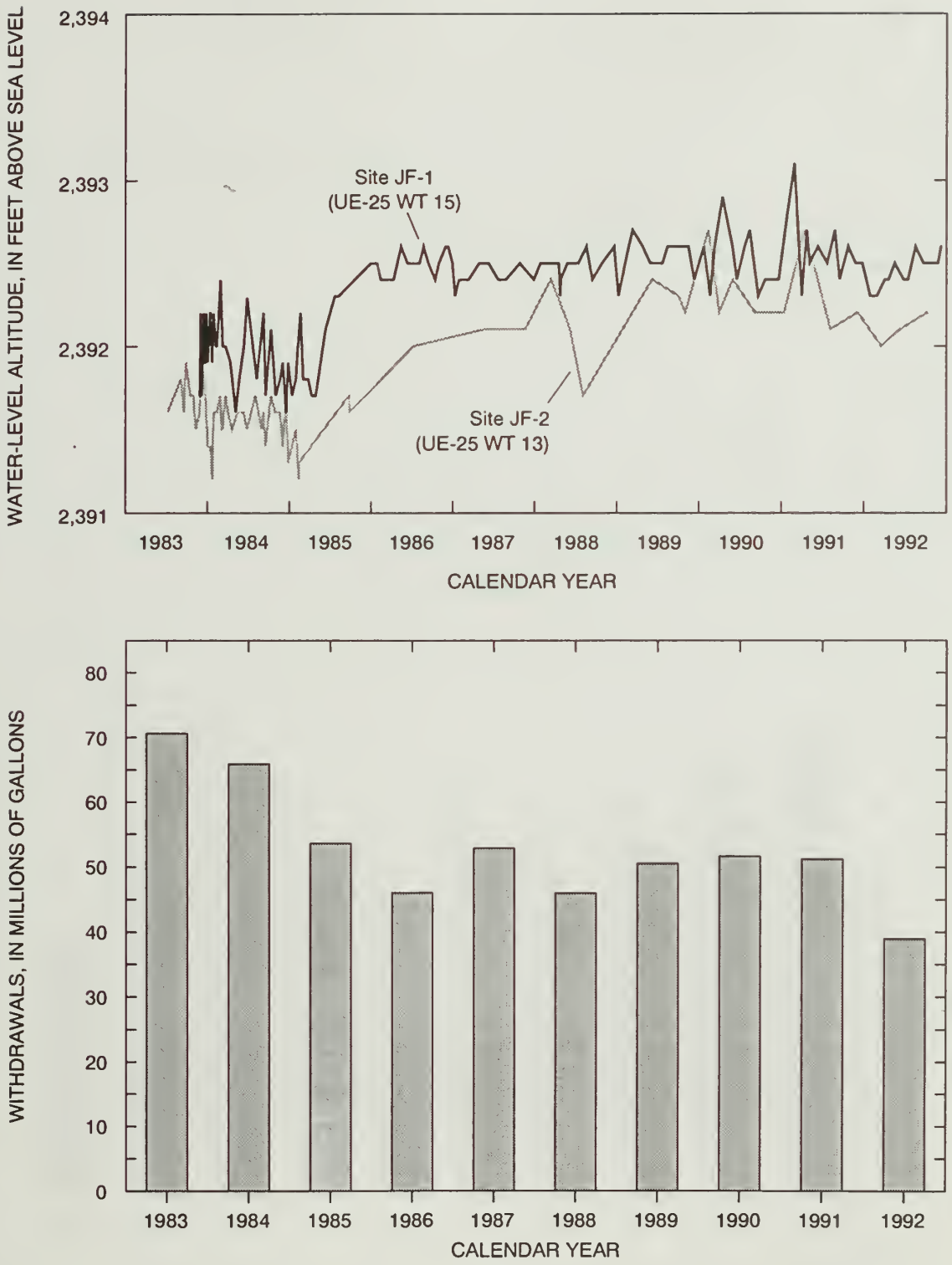


Figure 12. Water-level altitudes in wells JF-1 and JF-2 and estimated ground-water withdrawals from Jackass Flats, 1983 through 1992. Lines connect discrete water-level altitudes listed in table 2. Bar height equals sum of withdrawals from water-supply wells J-13 and J-12.

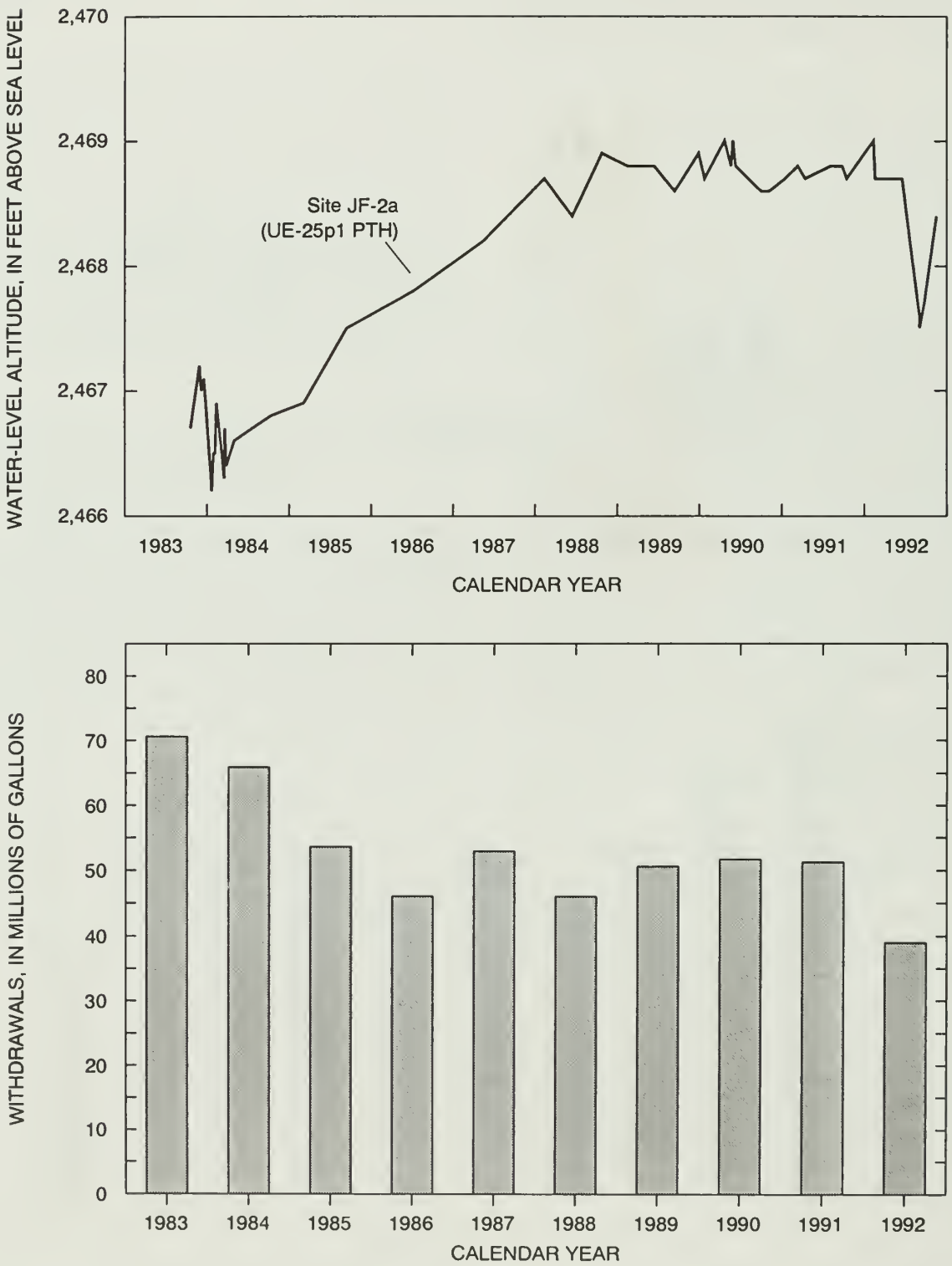


Figure 13. Water-level altitude in well JF-2a and estimated ground-water withdrawals from Jackass Flats, 1983 through 1992. Lines connect discrete water-level altitudes listed in table 2. Single measurement on November 7, 1983, has been excluded, as that measurement may represent transient conditions at the site. Bar height equals sum of withdrawals from water-supply wells J-13 and J-12.

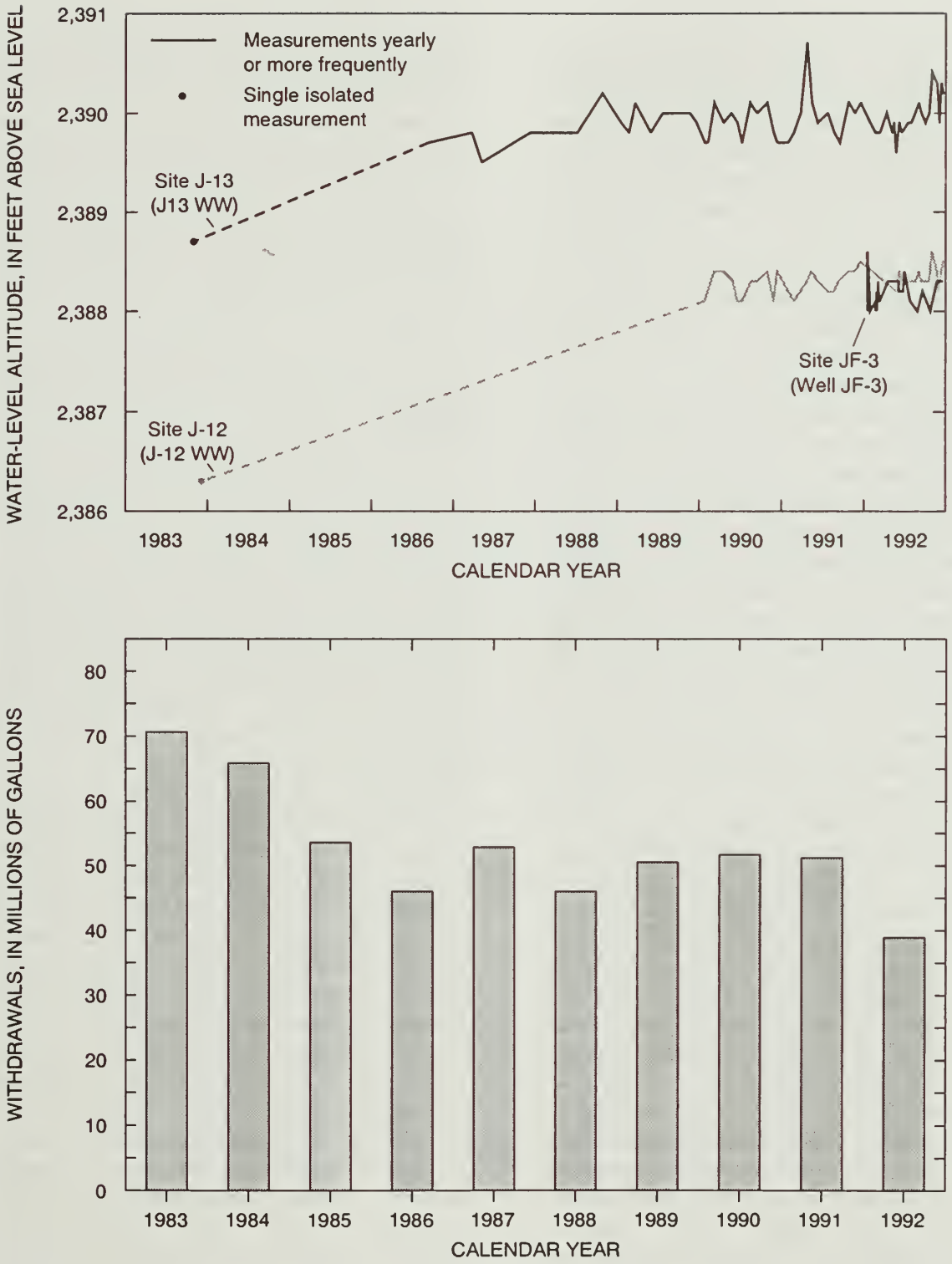


Figure 14. Water-level altitudes in wells J-13, J-12, and JF-3 and estimated ground-water withdrawals from Jackass Flats, 1983 through 1992. Lines connect discrete water-level altitudes listed in table 2, and are dashed where no measurements were available for consecutive calendar years. Data noted with water-level status of P or R have been excluded, as that data may represent transient conditions at a site. Bar height equals sum of withdrawals from water-supply wells J-13 and J-12.

Median water-level altitudes in wells JF-1 and JF-2, which are north of the water-supply wells and penetrate volcanic rock, were 2,392.5 and 2,392.1 ft above sea level, respectively, during the baseline period prior to 1992. Median water-level altitude in well JF-1 was 2,392.4 ft above sea level during 1992. The decrease of 0.1 ft between median water levels during the two periods at well JF-1 is less than the precision for the baseline period prior to 1992 and equal to that for 1992 (as indicated by the average deviation for the two periods).

Owing to the limited number of measurements available in well JF-2 for 1992, a median water-level altitude for 1992 was not determined. Periodic measurements in the well, however, were within 0.1 ft of the median water level at that site during the baseline period prior to 1992. Differences between measured water levels in 1992 and the median water level during the baseline period are less than the historical variability of individual measurements with respect to the median (as represented by the average deviation during the baseline period).

Median water-level altitude in well JF-2a, which is northwest of the supply wells and penetrates carbonate rock, was 2,468.7 ft above sea level during the baseline period prior to 1992. Median water level in the well during 1992 was 2,468.4 ft above sea level, indicating a decrease of 0.3 ft between the two periods. That apparent decrease equals the probable precision of the median for the baseline period (as represented by the average deviation during that period), and is less than the probable precision of the median during 1992 (as represented by an average deviation of 0.5 ft during 1992).

The water-level altitudes in well JF-2a decreased about 1-1/2 ft immediately following earthquakes in the region during the summer of 1992, and gradually recovered to near pre-earthquake levels through the summer and fall (O'Brien, 1993, p. 10). Owing to the limited number of available water-level measurements for 1992 (upon which the median is based), the calculated median for 1992 may be inordinately affected by measurements made in months when water levels were lower after the earthquakes. When available, more frequently collected data and continued data collection as part of site-characterization activities may provide additional insight on possible, long-term water-level changes in well JF-2a.

Median water-level altitude in well J-11, which is to the east of water-supply wells J-13 and J-12 and penetrates volcanic rock, was 2,402.2 ft above sea level during the baseline period prior to 1992. Median water-level altitude in well J-11 during 1992 was identical to the baseline period prior to 1992.

Ground-Water Quality in Yucca Mountain Region

Table 14 lists several measures of water samples that exceeded U.S. Environmental Protection Agency (USEPA) public drinking-water standards. These measures include physical characteristics and properties, microorganisms, inorganic and manmade organic constituents, and radioisotopes. Also listed are detected concentrations of manmade organic compounds for which drinking-water standards have been established (regardless of whether the concentration exceeded a drinking-water standard).

The three categories of drinking-water standards--established, proposed, and tentative--are shown to allow comparisons with measured characteristics in ground-water samples. Standards are defined by USEPA to ensure that safe drinking water is supplied to the public (U.S. Environmental Protection Agency, 1993). The State of Nevada has adopted and enforces the standards developed by the USEPA.

The standards are maximum contaminant levels for constituents and properties of drinking water supplied to the public. Standards are of two types: primary and secondary. Primary standards are health-based, maximum contaminant levels that are enforceable for all public water-supply systems (public water supplies are defined as systems that serve piped water to at least 25 people or 15 service connections for at least 60 days per year). Secondary standards are aesthetically based, maximum contaminant levels that are non-enforceable guidelines. Secondary standards, if exceeded, may not cause health problems but may result in water that is unpleasant to drink (U.S. Environmental Protection Agency, 1990).

Requirements of the drinking-water standards apply only to sites J-13, J-12, MV-1, AD-2a, and DV-1, which are public water supplies. Comparisons of ground-water quality in the region to drinking-water standards serve primarily to provide (1) a comprehensive and consistent basis against which the quality of ground water in the region can be evaluated, and (2) an indication of the general quality of ground water in the region. Water that meets drinking-water standards is generally considered to be of good quality and suitable for most other beneficial uses.

Several measures of water samples--total coliform bacteria, fluoride, dissolved solids, and radon (table 14)--exceeded established, proposed, or tentative standards at sites throughout most of the study area.

Concentrations of **total coliform bacteria** in water samples exceeded the primary drinking-water standard at sites CF-1, JF-3, AD-2a, AD-8, AD-9a, DV-2, and at most sites sampled in Ash Meadows (AM-1a, AM-2, AM-4, AM-5a, and AM-8). In 1991, about 4 months prior to sample collection at site DV-2, the tunnel that collects ground-water discharge immediately upstream from the sampling point was renovated. Total coliform bacteria occur naturally in the environment, and do not necessarily indicate fecal contamination (Sloat and Zeil, 1991, p. 2).

The secondary drinking-water standard for **fluoride** concentrations was exceeded in water samples collected at sites CF-1, J-13, AD-4a, AM-3, and DV-1. Dissolution of fluoride from rocks and soil normally contributes to fluoride concentrations in ground water (Hem, 1985, p. 121).

Concentrations of **dissolved solids** in water samples collected at sites CF-2a, AD-4a, AD-8, AM-3, DV-1, and DV-2 exceeded the secondary drinking-water standard. Dissolution of minerals in most rocks and soils contributes to naturally occurring concentrations of dissolved solids in ground water, although the presence of industrial or agricultural waste water or sewage can increase the dissolved-solids content of water (Garcia, 1989, p. 40).

Radon activities exceeded proposed primary drinking-water standard in samples collected at sites CF-1, CF-2a, J-12, JF-3, AD-2, AD-2a, AD-8, AD-9a, AM-2, AM-5a, and AM-8. Radon-222 is a soluble, naturally occurring radioisotope derived from radium (in a radioactive-decay series beginning with uranium-238; Hem, 1985, p. 148-149).

Several established, proposed, or tentative drinking-water standards were exceeded on an areally limited basis within the study area. Similarly, organic compounds for which standards have been established were detected only at isolated sites in the study area (rather than throughout the region). Constituents or properties that exceeded the standards or were detected at one or two sites were pH, color, turbidity, sulfate, arsenic, cadmium, iron, gross-alpha radioactivity, uranium, chloroform, benzene, toluene, and polychlorinated biphenyl (PCB) compounds (table 14).

The **pH** of one water sample from site AD-2 was outside the range established as the secondary drinking-water standard, and **color** exceeded the secondary standard in one water sample collected at site AM-5a. The pH is a measure of acidity in water due to the activity of hydrogen ions, and color is generally attributable to decay of organic matter (Garcia, 1989, p. 38).

Turbidity, which can interfere with disinfection of water (U.S. Environmental Protection Agency, 1990), exceeded the primary standard in one sample collected at site DV-2 during August 1991. In 1991, about 4 months prior to sample collection, the tunnel that collects ground-water discharge immediately upstream from the sampling point was renovated.

The secondary drinking-water standard for **sulfate** was exceeded at sites AD-8 and AM-3. The primary standard for **arsenic** was exceeded at sites AM-3 and DV-2. The primary standard for the concentration of **cadmium** and the secondary standard for the concentration of **iron** also were exceeded at site AM-3. Concentrations of those constituents generally result from dissolution of minerals in soils and rocks, although iron also can be corroded from well casings, pumps, and pipes (Thodal, 1992, p. 19-21).

Gross-alpha radioactivity exceeded the proposed primary drinking-water standard in two water samples collected at site AD-8 and one water sample collected at AM-3. The proposed primary drinking-water standard for the concentration of natural **uranium** also was exceeded, in one water sample from site AD-8. Uranium in ground water is largely derived from rocks and soils (Thatcher and others, 1977, p. 2). Natural gross-alpha radioactivity can come from radioactive isotopes of uranium in rocks and soils and from radioactive decay products of uranium such as radium-226 (Thatcher and others, 1977, p. 2). Artificial radioactivity can come from nuclear-waste disposal, nuclear-weapons testing, and peaceful applications of nuclear materials (Thatcher and others, 1977, p. 3).

Synthetic organic compounds were detected at one site in the Amargosa Desert and at two sites in Ash Meadows. Although detectable, concentrations of the compounds were below levels of established or proposed drinking-water standards in all but one sample collected at one site (AM-2).

One of the two analyses for site AD-2a indicated a **chloroform** concentration of 0.3 µg/L, which is well below the proposed standard of 100 µg/L. Chloroform is widespread in the atmosphere and water, especially in chlorine treated wastewater effluent (Lucius, 1989, p. 202-206). The compound is manmade, and is sometimes produced during chlorination of water supplies (Thodal, 1992, p. 25). Chlorine bleach is used for near-monthly disinfection of well AD-2a.

One of the three analyses for site AM-4 (Devils Hole) indicated **benzene** and **toluene** concentrations of 0.2 and 0.3 µg/L, respectively, which are well below the standards of 5 and 1,000 µg/L. Minor amounts of benzene and toluene may occur naturally, but their presence in ground water is mainly related to contamination by petroleum products (Thodal, 1992, p. 23, 28). Both compounds are present in gasoline-engine exhaust and gasoline vapors. A gasoline-powered air compressor is used at site AM-4 during sample collection, and petroleum-based lubricants have been used for instrumentation.

Two analyses for site AM-2 indicated **gross polychlorinated biphenyl (PCB)** concentrations of 0.2 and 1.1 µg/L. Of those concentrations, 1.1 µg/L exceeds the drinking-water standard of 0.5 µg/L. PCB's were commonly used in some electrical equipment (Hem, 1985, p. 154), including electrical transformers and capacitors prior to 1978. For example, about 1 million submersible pumps with capacitors containing from 0.25 to 0.8 pounds of PCB's may remain in drinking-water supply wells in the United States (U.S. Environmental Protection Agency, written commun., 1985). A pump was temporarily installed in well AM-2 in the past, and abandoned electrical equipment is present near the well.

In addition to site-specific activities that might affect water quality, the procedures and materials used to collect, process, and analyze water samples can be of importance in evaluating the analytical results. Water-quality procedures and materials used during sample collection and processing are discussed in unpublished USGS Technical Procedures HP-225, Rev. 1 (Richard J. La Camera, U.S. Geological Survey, written commun., 1992) and HP-23, Rev. 2 (William C. Steinkampf, U.S. Geological Survey, written commun., 1991). Refer also to the section "Quality Assurance."

REFERENCES CITED

Buchanan, T.J., and Somers, W.P., 1969, Discharge measurements at gaging stations: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A8, 65 p. (NNA.940106.0099).

Carson, R.L., 1979, Water-resources data collected in the Devils Hole area, Nye County, Nevada, 1976-77: U.S. Geological Survey Open-File Report 79-742, 22 p. (NNA.940412.0054)

-----1980, Water-resources data collected in the Devils Hole area, Nye County, Nevada, 1977-78: U.S. Geological Survey Open-File Report 80-772, 15 p. (NNA.940412.0055)

Claassen, H.C., 1973, Water quality and physical characteristics of Nevada Test Site water supply wells: U.S. Geological Survey Open-File Report USGS-474-158, 145 p. (HQS.880517.1740).

-----1985, Sources and mechanisms of recharge for ground water in the west-central Amargosa Desert, Nevada--A geochemical interpretation: U.S. Geological Survey Professional Paper 712-F, 31 p. (NNA. 900124.0031).

Dettinger, M.D., 1989, Distribution of carbonate-rock aquifers in southern Nevada and the potential for their development—Summary of findings, 1985-88: Carson City, Nevada, Program for the Study and Testing of Carbonate-Rock Aquifers in Eastern and Southern Nevada, Summary Report No. 1, 37 p. (NNA.940412.0056)

Dudley, W.W., Jr., and Larson, J.D., 1976, Effect of irrigation pumping on desert pupfish habitats in Ash Meadows, Nye County, Nevada: U.S. Geological Survey Professional Paper 927, 52 p. (NNA.870518.0076).

Fenneman, N.M, 1931, Physiography of western United States: New York, McGraw-Hill Book Co., 534 p. (HQZ.870301.0373) (NNA.870406. 0080).

Garber, M.S., and Koopman, F.C., 1968, Methods of measuring water levels in deep wells: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 8, Chapter A1, 23 p. (NNA.900104.0427).

Garcia, K.T., 1989, Ground-water quality in Douglas County, western Nevada: U.S. Geological Survey Water-Resources Investigations Report 87-4269, 107 p. (NNA.940412.0057)

Gemmell, J.M., 1990, Water levels in periodically measured wells in the Yucca Mountain area, Nevada, 1988: U.S. Geological Survey Open-File Report 90-113, 47 p. (NNA.900221.0001).

Hanes, W.T., 1976, Water-resources data collected in the Devils Hole area, Nevada, 1975-76: U.S. Geological Survey Open-File Report 76-797, 15 p. (NNA.940427.0183)

Harrill, J.R., Gates, J.S., and Thomas, J.M., 1988, Major ground-water flow systems in the Great Basin region of Nevada, Utah, and adjacent states: U.S. Geological Survey Hydrologic Investigations Atlas HA-694-C, 2 sheets. (NNA.940412.0058-0059)

Hem, J.D., 1985, Study and interpretation of the chemical characteristics of natural water: U.S. Geological Survey Water-Supply Paper 2254, 263 p. (NNA.940427.0181).

Johnston, R.H., 1968, U.S. Geological Survey tracer study, Amargosa Desert, Nye County, Nevada, Part 1, Exploratory drilling, tracer well construction and testing, and preliminary findings: U.S. Geological Survey report USGS-474-98, 64 p. Available only from National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. (NNA.900227.0055).

Kilpatrick, F.A., and Schneider, V.R., 1983, Use of flumes in measuring discharge: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chap. A14, 46 p. (NNA.940427. 0184).

Kilroy, K.C., 1991, Ground-water conditions in Amargosa Desert, Nevada-California, 1952-87: U.S. Geological Survey Water-Resources Investigations Report 89-4101, 93 p. (NNA. 930602.0003-0007).

Larson, J.D., 1974a, Water-resources data collected in the Devils Hole area, Nevada, 1972-73: U.S. Geological Survey Water-Resources Investigations Report 61-73, 20 p. (NNA.940427.0180)

-----1974b, Water-resources data collected in the Devils Hole area, Nevada, 1973-74: U.S. Geological Survey Open-File Report 74-330, 12 p. (NNA.940412.0061)

-----1975, Water-resources data collected in the Devils Hole area, Nevada, 1974-75: U.S. Geological Survey Open-File Report, 12 p. (NNA.940520. 0070)

Lucius, J.E., Olhoeft, G.R., Hill, P.L., and Duke, S.K., 1989, Properties and hazards of 108 selected substances: U.S. Geological Survey Open-File Report 89-491, 538 p. (NNA.940427.0185)

Luckey, R.R., Lobmeyer, D.H., and Burkhardt, D.J., 1993, Water levels in continuously monitored wells in the Yucca Mountain area, Nevada, 1985-88: U.S. Geological Survey Open-File Report 91-493, 225 p. (NNA.910611.0014)

McKinley, P.W., Long, M.P., and Benson, L.V., 1991, Chemical analysis of water from selected wells and springs in the Yucca Mountain area, Nevada and southeastern California: U.S. Geological Survey Open-File Report 90-355, 47 p. (NNA. 901031.0004)

O'Brien, G.M., 1991, Water levels in periodically measured wells in the Yucca Mountain area, Nevada, 1989: U.S. Geological Survey Open-File Report 91-178, 51 p. (NNA. 910708.0041).

-----1993, Earthquake-induced water-level fluctuations at Yucca Mountain, Nevada, June 1992: U.S. Geological Survey Open-File Report 93-73, p. 12 (NNA.930326.0022).

Robison, J.H., Stephens, D.M., Luckey, R.R., and Baldwin, D.A., 1988, Water levels in periodically measured wells in the Yucca Mountain area, Nevada, 1981-87: U.S. Geological Survey Open-File Report 88-468, 132 p. (NNA.890306. 0113).

Rush, F.E., 1968, Index of hydrographic areas in Nevada: Nevada Division of Water Resources, Information Report 6, 38 p. (HQS.880517.1833).

Sloat, Sharon, and Ziel, Carol, 1991, The use of indicator organisms to assess public water safety: Loveland, Colo., HACH Technical Center for Applied Chemistry, Technical Information Series - Booklet No. 13, 29 p. (NNA.940427.0186)

Thatcher, L.L., Janzer, V.J., and Edwards, K.W., 1977, Methods for determination of radioactive substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A5, 95 p. (NNA.940421.0043).

Thodal, C.E., 1992, Data on ground-water quality, Carson Valley and Topaz Lake areas, Douglas County, Nevada, for year ending September 1987: U.S. Geological Survey Open-File Report 90-146, 44 p. (NNA.940412.0062)

Thordarson, William, 1983, Geohydrologic data and test results from well J-13, Nevada Test Site, Nye County, Nevada: U.S. Geological Survey Water-Resources Investigations Report 83-4171, 57 p. (NNA.870518.0071).

Thordarson, William, and Howells, Lewis, 1987, Hydraulic tests and chemical quality of water at well USW VH-1, Crater Flat, Nye County, Nevada: U.S. Geological Survey Water-Resources Investigations Report 86-4359, 20 p. (NNA.890922.0289).

Thordarson, William, Young, R.A., and Winograd, I.J., 1967, Records of wells and test holes in the Nevada Test Site and vicinity (through December 1966): U.S. Geological Survey Open-File Report TEI-872, 26 p. (HQS.880517.1851).

U.S. Bureau of Reclamation, 1984, Water measurement manual: Washington D.C., U.S. Government Printing Office, 327 p. (NNA.940421.0044).

U.S. Environmental Protection Agency, 1990, The safe drinking water act: Washington, D.C., U.S. Government Printing Office, 56 p. (NNA.940427.0187).

-----1993, Drinking water regulations and health advisories: Washington, D.C. U.S. Environmental Protection Agency, 11 p. (NNA.940510.0010).

Waddell, R.K., Robison, J.H., and Blankennagel, R.K., 1984, Hydrology of Yucca Mountain and vicinity, Nevada-California—Investigative results through mid-1983: U.S. Geological Survey Water-Resources Investigations Report 84-4267, 72 p. (NNA.900618.0074).

Walker, G.E., and Eakin, T.E., 1963, Geology and ground water of Amargosa Desert, Nevada-California: Nevada Department of Conservation and Natural Resources, Ground-Water Resources - Reconnaissance Report 14, 45 p. (HQS.880517.1862).

Westenburg, C.L., 1993, Water-resources data for the Devils Hole area, Nye County, Nevada, July 1978-September 1988: U.S. Geological Survey Open-File Report 90-381, 13 p. (NNA.940412.0063)

Winograd, I.J., and Thordarson, William, 1975, Hydrogeologic and hydrochemical framework, south-central Great Basin, Nevada-California, with special reference to the Nevada Test Site: U.S. Geological Survey Professional Paper 712-C, 126 p. (NNA.870406.0201).

Young, R.A., 1972, Water supply for the nuclear rocket development station at the U.S. Atomic Energy Commission's Nevada Test Site: U.S. Geological Survey Water-Supply Paper 1938, 19 p. (NNA.870519.0070).

Note: Parenthetical numbers following each cited reference are for U.S. Department of Energy Office of Civilian Radioactive Waste Management (OCRWM) records-management purposes only and should not be used when ordering the publication.

BASIC DATA

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey (USGS).
Land-surface altitude: Altitude of land surface in vicinity of site. Exception is altitude for site AM-4, which is altitude of bolt that serves as a measurement point. Altitudes are reported to nearest 0.1 foot and were derived from USGS land surveys, except site MV-1 (for which data are reported only to nearest foot).
Height of measurement point: Height of measurement point (MP) most recently used. MP is stable, recoverable point from which periodic measurements to depth of water are made. MP at site AM-4 is bolt fastened to south wall of fissure, and is not referenced to land surface. Negative number indicates MP is below land surface.
Depth to water: Depths listed generally represent water level below land surface. Exceptions are site AM-4, where data represent water level below measurement point, and site AM-2, where negative numbers represent water levels above land surface. Site AM-2 is flowing well with water standing above land surface in casing. Apparent differences in depth to water at sites that list data from various sources may result from differing estimates of distance from land surface to measurement point used.
Method: Method used to measure depth to water. A, average monthly water level, reported for 15th of month; B, depth to water calculated from millivolt output of transducer installed in well and most recent calibration of instrumentation; C, calibrated airline; N, depth to water is read from permanently installed staff or measured below measurement point; R, reported, method unknown; S, steel tape; T, uncalibrated electric cable; V, calibrated single conductor cable, multiconductor cable, or electric tape; Z, measurement made by Nevada Division of Water Resources, method unknown.
Status: Known conditions at site that may have affected measured depth to water. F, flowing; I, injection of water into well prior to or during measurement; P, well pumping during measurement; R, well recently pumped; S, nearby well pumping during measurement.
Data source: EMP, Environmental-Monitoring Program (USGS); NDWR, Nevada Division of Water Resources; NPS, National Park Service; OFR 474-98, Johnston, 1968; OFR 88-468, Robison and others, 1988; OFR 90-113, Gemmel, 1990; OFR 91-178, O'Brien, 1991; OFR 91-493, Luckey and others, 1993; PP712-F, Claassen, 1985; RSR 14, Walker and Eakin, 1963; SCP, Site-Characterization Project (USGS); TEI-872, Thordarson and others, 1967; USFWS, U.S. Fish and Wildlife Service; USGS-CA, California District programs; USGS-NV, other Nevada District programs; WRI 83-4171, Thordarson, 1983; WRI 86-4359, Thordarson and Howell, 1987; WRI 89-4101, Kilroy, 1991; WSP 1938, Young, 1972; WTP, USGS programs associated with U.S. Department of Energy Nevada Test Site operations, including weapons testing and nuclear rocket development.
[--, not reported; -, not applicable]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
CF-1	365520116370301	Gexa Well 4	3,930.9	1.82	09-11-90	--	665.5	3,265.4	T	R	EMP
					04-10-91	--	642.77	3,288.1	C	-	EMP
					09-04-91	--	797.74	3,133.2	T	P	EMP
					02-20-92	--	623.07	3,307.8	V	-	EMP
					04-15-92	--	622.97	3,307.9	V	-	EMP
					05-18-92	0750	622.09	3,308.8	V	-	EMP
					06-17-92	1000	622.00	3,308.9	V	-	EMP
					07-22-92	1030	623.46	3,307.4	V	-	EMP
					08-31-92	1630	620.90	3,310.0	V	-	EMP
					09-18-92	1200	620.71	3,310.2	V	-	EMP
					10-22-92	1240	620.47	3,310.4	V	-	EMP
					11-20-92	1515	619.98	3,310.9	V	-	EMP
					12-15-92	1530	619.59	3,311.3	V	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
CF-1a	365445116383901	Gexa Well 3	4,080.9	1.68	09-11-90	--	147.3	3,933.6	T	-	EMP
					04-10-91	--	156.69	3,924.2	S	-	EMP
					09-04-91	--	156.10	3,924.8	S	-	EMP
					11-22-91	--	156.56	3,924.3	S	-	EMP
					02-20-92	--	157.25	3,923.6	S	-	EMP
					03-25-92	--	157.53	3,923.4	S	-	EMP
					04-15-92	--	157.72	3,923.2	S	-	EMP
					05-18-92	0831	158.10	3,922.8	S	-	EMP
					06-17-92	1043	158.35	3,922.5	S	-	EMP
					07-22-92	1025	158.91	3,922.0	S	-	EMP
					08-19-92	1830	159.22	3,921.7	S	-	EMP
					09-18-92	1055	159.54	3,921.4	S	-	EMP
					10-22-92	1311	160.21	3,920.7	S	-	EMP
					11-20-92	1444	161.13	3,919.8	S	-	EMP
					12-15-92	1245	161.10	3,919.8	S	-	EMP
CF-2	364732116330701	USW VH-1	3,161.1	1.17	12-07-80	--	601.38	2,559.7	R	-	WRI 86-4359
					01-17-81	--	601.71	2,559.4	R	-	WRI 86-4359
					04-12-84	--	603.90	2,557.2	V	-	OFR 88-468
					05-02-84	1625	603.93	2,557.2	V	-	OFR 88-468
					05-23-84	1600	603.91	2,557.2	V	-	OFR 88-468
					06-08-84	--	604.05	2,557.0	V	-	OFR 88-468
					07-09-84	1010	604.11	2,557.0	V	-	OFR 88-468
					08-02-84	1055	603.93	2,557.2	V	-	OFR 88-468
					09-13-84	1145	603.98	2,557.1	V	-	OFR 88-468
					10-18-84	1010	604.56	2,556.5	V	-	OFR 88-468
					11-01-84	1010	604.34	2,556.8	V	-	OFR 88-468
					11-27-84	1040	604.27	2,556.8	V	-	OFR 88-468
					12-06-84	1030	604.57	2,556.5	V	-	OFR 88-468
					01-03-85	1115	604.12	2,557.0	V	-	OFR 88-468
					01-17-85	1130	604.19	2,556.9	V	-	OFR 88-468
					02-01-85	1020	603.94	2,557.2	V	-	OFR 88-468
					02-06-85	1000	604.24	2,556.9	V	-	OFR 88-468
					02-21-85	1100	604.11	2,557.0	V	-	OFR 88-468
					03-18-85	0955	604.28	2,556.8	V	-	OFR 88-468
					04-16-85	1015	604.03	2,557.1	V	-	OFR 88-468

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
CF-2	364732116330701	USW VH-1	3,161.1	1.17	06-21-85	--	603.93	2,557.2	S	-	OFR 88-468
					07-17-85	--	603.97	2,557.1	S	-	OFR 88-468
					08-07-85	--	603.97	2,557.1	S	-	OFR 88-468
					08-21-85	--	604.00	2,557.1	S	-	OFR 88-468
					09-03-85	--	603.91	2,557.2	S	-	OFR 88-468
					09-30-85	--	603.86	2,557.2	S	-	OFR 88-468
					10-16-85	--	603.86	2,557.2	S	-	OFR 88-468
					10-31-85	--	603.91	2,557.2	S	-	OFR 88-468
					11-29-85	--	603.84	2,557.3	S	-	OFR 88-468
					12-13-85	--	603.86	2,557.2	S	-	OFR 88-468
					01-22-86	0955	603.95	2,557.2	S	-	OFR 88-468
					02-25-86	1345	603.92	2,557.2	S	-	OFR 88-468
					03-19-86	--	603.99	2,557.1	S	-	OFR 88-468
					04-17-86	--	603.90	2,557.2	S	-	OFR 88-468
					04-29-86	--	603.84	2,557.3	S	-	OFR 88-468
					06-04-86	--	603.88	2,557.2	S	-	OFR 88-468
					07-02-86	--	603.95	2,557.2	S	-	OFR 88-468
					08-04-86	--	603.91	2,557.2	S	-	OFR 88-468
					09-04-86	--	603.97	2,557.1	S	-	OFR 88-468
					09-30-86	--	603.93	2,557.2	S	-	OFR 88-468
					10-31-86	--	603.88	2,557.2	S	-	OFR 88-468
					11-20-86	--	603.98	2,557.1	S	-	OFR 88-468
					12-05-86	--	603.77	2,557.3	S	-	OFR 88-468
					01-14-87	--	603.74	2,557.4	S	-	OFR 88-468
					02-05-87	--	604.17	2,556.9	S	-	OFR 88-468
					03-05-87	--	604.18	2,556.9	S	-	OFR 88-468
					05-14-87	--	604.15	2,557.0	S	-	OFR 88-468
					05-27-87	--	603.97	2,557.1	S	-	OFR 88-468
					06-17-87	--	603.89	2,557.2	S	-	OFR 88-468
					07-14-87	--	603.84	2,557.3	S	-	OFR 88-468
					08-06-87	--	603.91	2,557.2	S	-	OFR 88-468
					08-27-87	--	603.94	2,557.2	S	-	OFR 88-468
					09-17-87	--	603.94	2,557.2	S	-	OFR 88-468
					10-21-87	--	603.80	2,557.3	S	-	OFR 88-468
					11-18-87	0955	604.23	2,556.9	S	-	OFR 88-468

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
CF-2	364732116330701	USW VH-1	3,161.1	1.17	12-03-87	1005	603.99	2,557.1	S	-	OFR 88-468
					12-16-87	0935	603.70	2,557.4	S	-	OFR 88-468
					01-22-88	--	604.12	2,557.0	S	-	OFR 91-178
					02-24-88	--	603.88	2,557.2	S	-	OFR 91-178
					03-07-88	--	604.05	2,557.0	S	-	OFR 91-178
					04-05-88	--	603.98	2,557.1	S	-	OFR 91-178
					05-17-88	--	603.66	2,557.4	V	-	OFR 91-178
					06-23-88	--	603.79	2,557.3	V	-	OFR 91-178
					07-08-88	--	603.75	2,557.4	V	-	OFR 91-178
					08-17-88	--	603.78	2,557.3	V	-	OFR 91-178
					09-15-88	--	603.69	2,557.4	V	-	OFR 91-178
					10-06-88	--	603.66	2,557.4	V	-	OFR 91-178
					11-17-88	--	603.72	2,557.4	V	-	OFR 91-178
					12-21-88	--	603.66	2,557.4	V	-	OFR 91-178
					01-19-89	--	603.58	2,557.5	V	-	OFR 91-178
					02-16-89	--	603.56	2,557.5	V	-	OFR 91-178
					03-23-89	--	603.72	2,557.4	S	-	OFR 91-178
					04-21-89	--	603.72	2,557.4	S	-	OFR 91-178
					05-18-89	--	603.79	2,557.3	S	-	OFR 91-178
					07-18-89	--	603.79	2,557.3	S	-	OFR 91-178
					10-04-89	--	603.79	2,557.3	S	-	OFR 91-178
					11-28-89	--	604.12	2,557.0	S	-	OFR 91-178
					12-21-89	--	603.85	2,557.2	S	-	OFR 91-178
					01-30-90	1332	603.36	2,557.7	S	-	SCP
					02-28-90	1402	603.80	2,557.3	S	-	SCP
					03-16-90	1141	603.80	2,557.3	S	-	SCP
					04-18-90	1119	603.80	2,557.3	S	-	SCP
					05-25-90	--	604.58	2,556.5	S	-	SCP
					06-15-90	0935	603.80	2,557.3	S	-	SCP
					07-02-90	1024	603.60	2,557.5	S	-	SCP
					08-17-90	1010	603.79	2,557.3	S	-	SCP
					09-26-90	1002	603.82	2,557.3	S	-	SCP
					10-03-90	1104	603.91	2,557.2	S	-	SCP
					11-21-90	1107	604.02	2,557.1	S	-	SCP
					12-31-90	1118	603.97	2,557.1	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
CF-2	364732116330701	USW VH-1	3,161.1	1.17	01-30-91	1237	603.91	2,557.2	S	-	SCP
					02-21-91	1340	603.65	2,557.4	S	-	SCP
					03-28-91	1118	603.99	2,557.1	S	-	SCP
					04-26-91	--	603.90	2,557.2	S	-	SCP
					05-21-91	1257	603.64	2,557.5	S	-	SCP
					06-20-91	1109	603.73	2,557.4	S	-	SCP
					07-29-91	1126	603.64	2,557.5	S	-	SCP
					08-29-91	1038	603.88	2,557.2	S	-	SCP
					09-27-91	0904	603.65	2,557.4	S	-	SCP
					01-28-92	1412	603.76	2,557.3	S	-	SCP
					02-14-92	1007	603.96	2,557.1	S	-	SCP
					02-24-92	1240	603.96	2,557.1	S	-	SCP
					03-12-92	0920	603.97	2,557.1	S	-	SCP
					03-24-92	0940	604.08	2,557.0	S	-	SCP
					04-13-92	0950	603.92	2,557.2	S	-	SCP
					04-23-92	1204	604.05	2,557.0	S	-	SCP
					05-08-92	1117	604.18	2,556.9	S	-	SCP
					05-26-92	1325	603.83	2,557.3	S	-	SCP
					06-05-92	1119	603.77	2,557.3	S	-	SCP
					06-18-92	1214	603.82	2,557.3	S	-	SCP
					07-13-92	1220	603.94	2,557.2	S	-	SCP
					07-29-92	0856	603.85	2,557.2	S	-	SCP
					07-31-92	1106	603.97	2,557.1	S	-	SCP
					08-09-92	1331	603.83	2,557.3	S	-	SCP
					08-12-92	1135	603.85	2,557.2	S	-	SCP
					08-27-92	1127	603.98	2,557.1	S	-	SCP
					09-08-92	1332	603.83	2,557.3	S	-	SCP
					09-18-92	1143	603.86	2,557.2	S	-	SCP
					10-14-92	1251	603.77	2,557.3	S	-	SCP
					10-23-92	1349	603.88	2,557.2	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
CF-2	364732116330701	USW VH-1	3,161.1	1.17	11-02-92	1032	603.87	2,557.2	S	-	SCP
					11-20-92	0927	603.92	2,557.2	S	-	SCP
					11-20-92	1000	603.92	2,557.2	V	-	EMP
					11-20-92	1010	603.92	2,557.2	V	-	EMP
					12-01-92	1223	603.76	2,557.3	S	-	SCP
					12-23-92	0923	603.97	2,557.1	S	-	SCP
JF-1	365116116233801	UE-25 WT 15	3,553.8	0.18	11-29-83	1150	1,162.11	2,391.7	V	-	OFR 88-468
					12-01-83	1200	1,161.56	2,392.2	V	-	OFR 88-468
					12-07-83	1325	1,162.12	2,391.7	V	-	OFR 88-468
					12-15-83	1410	1,161.56	2,392.2	V	-	OFR 88-468
					12-19-83	1045	1,161.94	2,391.9	V	-	OFR 88-468
					12-22-83	1205	1,161.92	2,391.9	V	-	OFR 88-468
					12-27-83	1250	1,161.64	2,392.2	V	-	OFR 88-468
					01-04-84	1220	1,161.90	2,391.9	V	-	OFR 88-468
					01-13-84	1455	1,161.56	2,392.2	V	-	OFR 88-468
					01-16-84	1200	1,161.63	2,392.2	V	-	OFR 88-468
					01-23-84	1200	1,161.90	2,391.9	V	-	OFR 88-468
					01-30-84	1210	1,161.63	2,392.2	V	-	OFR 88-468
					02-08-84	1140	1,161.81	2,392.0	V	-	OFR 88-468
					02-13-84	1140	1,161.75	2,392.0	V	-	OFR 88-468
					02-29-84	1205	1,161.38	2,392.4	V	-	OFR 88-468
					03-09-84	1125	1,161.85	2,392.0	V	-	OFR 88-468
					03-22-84	1200	1,161.77	2,392.0	V	-	OFR 88-468
					04-13-84	1530	1,161.91	2,391.9	V	-	OFR 88-468
					05-07-84	1200	1,162.21	2,391.6	V	-	OFR 88-468
					05-22-84	1215	1,162.04	2,391.8	V	-	OFR 88-468
					06-12-84	1210	1,161.80	2,392.0	V	-	OFR 88-468
					06-26-84	1305	1,161.55	2,392.2	V	-	OFR 88-468
					08-08-84	1045	1,161.97	2,391.8	V	-	OFR 88-468
					09-07-84	1400	1,161.63	2,392.2	V	-	OFR 88-468
					09-17-84	1225	1,162.08	2,391.7	V	-	OFR 88-468

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-1	3651161116233801	UE-25 WT 15	3,553.8	0.18	10-11-84	1405	1,161.70	2,392.1	V	-	OFR 88-468
					11-02-84	1130	1,162.09	2,391.7	V	-	OFR 88-468
					11-21-84	1040	1,162.03	2,391.8	V	-	OFR 88-468
					12-03-84	1150	1,161.92	2,391.9	V	-	OFR 88-468
					12-18-84	1050	1,162.22	2,391.6	V	-	OFR 88-468
					12-27-84	1505	1,161.92	2,391.9	V	-	OFR 88-468
					01-14-85	1300	1,162.09	2,391.7	V	-	OFR 88-468
					01-30-85	1125	1,162.03	2,391.8	V	-	OFR 88-468
					02-08-85	1230	1,161.83	2,392.0	V	-	OFR 88-468
					02-20-85	1410	1,161.57	2,392.2	V	-	OFR 88-468
					03-04-85	1310	1,161.99	2,391.8	V	-	OFR 88-468
					03-26-85	1320	1,161.99	2,391.8	V	-	OFR 88-468
					04-11-85	0910	1,162.08	2,391.7	V	-	OFR 88-468
					04-29-85	1305	1,162.13	2,391.7	V	-	OFR 88-468
					06-11-85	1130	1,161.65	2,392.2	S	-	OFR 88-468
					07-23-85	--	1,161.47	2,392.3	S	-	OFR 88-468
					08-09-85	--	1,161.55	2,392.2	S	-	OFR 88-468
					12-30-85	--	1,161.31	2,392.5	S	-	OFR 88-468
					01-28-86	1230	1,161.25	2,392.6	S	-	OFR 88-468
					02-13-86	--	1,161.45	2,392.4	S	-	OFR 88-468
					03-24-86	--	1,161.43	2,392.4	S	-	OFR 88-468
					04-11-86	--	1,161.45	2,392.4	S	-	OFR 88-468
					05-15-86	--	1,161.24	2,392.6	S	-	OFR 88-468
					06-12-86	--	1,161.35	2,392.4	S	-	OFR 88-468
					07-08-86	--	1,161.33	2,392.5	S	-	OFR 88-468
					08-05-86	--	1,161.25	2,392.6	S	-	OFR 88-468
					08-23-86	--	1,161.23	2,392.6	S	-	OFR 88-468
					09-14-86	--	1,161.35	2,392.4	S	-	OFR 88-468
					10-14-86	--	1,161.45	2,392.4	S	-	OFR 88-468
					10-30-86	--	1,161.31	2,392.5	S	-	OFR 88-468
					11-29-86	--	1,161.19	2,392.6	S	-	OFR 88-468
					12-11-86	--	1,161.24	2,392.6	S	-	OFR 88-468
					12-30-86	--	1,161.35	2,392.4	S	-	OFR 88-468
					01-10-87	--	1,161.55	2,392.2	S	-	OFR 88-468
					01-28-87	--	1,161.42	2,392.4	S	-	OFR 88-468

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-1	365116116233801	UE-25 WT 15	3,553.8	0.18	02-13-87	--	1,161.37	2,392.4	S	-	OFR 88-468
					03-12-87	--	1,161.43	2,392.4	S	-	OFR 88-468
					04-28-87	--	1,161.27	2,392.5	S	-	OFR 88-468
					05-05-87	--	1,161.29	2,392.5	S	-	OFR 88-468
					05-29-87	--	1,161.31	2,392.5	S	-	OFR 88-468
					06-10-87	--	1,161.33	2,392.5	S	-	OFR 88-468
					07-22-87	--	1,161.37	2,392.4	S	-	OFR 88-468
					08-26-87	--	1,161.38	2,392.4	S	-	OFR 88-468
					10-27-87	1440	1,161.25	2,392.6	S	-	OFR 88-468
					12-28-87	1340	1,161.41	2,392.4	S	-	OFR 88-468
					01-27-88	--	1,161.32	2,392.5	S	-	OFR 90-113
					02-16-88	--	1,161.28	2,392.5	S	-	OFR 90-113
					04-18-88	--	1,161.28	2,392.5	S	-	OFR 90-113
					04-25-88	--	1,161.48	2,392.3	S	-	OFR 90-113
					04-26-88	--	1,161.38	2,392.4	S	-	OFR 90-113
					05-26-88	--	1,161.28	2,392.5	S	-	OFR 90-113
					06-30-88	--	1,161.28	2,392.5	S	-	OFR 90-113
					07-14-88	--	1,161.28	2,392.5	S	-	OFR 90-113
					08-19-88	--	1,161.15	2,392.6	S	-	OFR 90-113
					09-14-88	--	1,161.38	2,392.4	S	-	OFR 90-113
					10-28-88	--	1,161.25	2,392.6	S	-	OFR 90-113
					12-20-88	--	1,161.22	2,392.6	S	-	OFR 90-113
					01-09-89	--	1,161.51	2,392.3	S	-	OFR 91-178
					02-23-89	--	1,161.22	2,392.6	S	-	OFR 91-178
					03-13-89	--	1,161.12	2,392.7	S	-	OFR 91-178
					04-26-89	--	1,161.15	2,392.6	S	-	OFR 91-178
					05-30-89	--	1,161.35	2,392.4	S	-	OFR 91-178
					06-30-89	--	1,161.32	2,392.5	S	-	OFR 91-178
					07-24-89	--	1,161.32	2,392.5	S	-	OFR 91-178
					08-14-89	--	1,161.18	2,392.6	S	-	OFR 91-178
					10-03-89	--	1,161.15	2,392.6	S	-	OFR 91-178
					11-16-89	--	1,161.18	2,392.6	S	-	OFR 91-178
					12-11-89	--	1,161.45	2,392.4	S	-	OFR 91-178
					01-23-90	1442	1,161.20	2,392.6	S	-	SCP
					02-20-90	1524	1,161.46	2,392.3	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-1	365116116233801	UE-25 WT 15	3,553.8	0.18	03-12-90	1048	1,161.18	2,392.6	S	-	SCP
					04-16-90	1050	1,160.95	2,392.8	S	-	SCP
					05-30-90	1428	1,161.20	2,392.6	S	-	SCP
					06-18-90	0934	1,161.37	2,392.4	S	-	SCP
					07-23-90	1058	1,161.23	2,392.6	S	-	SCP
					08-15-90	0900	1,161.06	2,392.7	S	-	SCP
					09-21-90	1052	1,161.46	2,392.3	S	-	SCP
					10-22-90	0951	1,161.36	2,392.4	S	-	SCP
					11-16-90	1111	1,161.39	2,392.4	S	-	SCP
					12-21-90	1109	1,161.40	2,392.4	S	-	SCP
					01-28-91	1137	1,161.03	2,392.8	S	-	SCP
					02-28-91	1306	1,160.70	2,393.1	S	-	SCP
					04-02-91	1053	1,161.54	2,392.3	S	-	SCP
					04-25-91	1419	1,161.12	2,392.7	S	-	SCP
					05-07-91	1401	1,161.34	2,392.5	S	-	SCP
					06-13-91	1241	1,161.24	2,392.6	S	-	SCP
					07-23-91	1326	1,161.33	2,392.5	S	-	SCP
					08-27-91	1444	1,161.10	2,392.7	S	-	SCP
					09-16-91	1250	1,161.44	2,392.4	S	-	SCP
					10-25-91	1144	1,161.19	2,392.6	S	-	SCP
					11-26-91	1344	1,161.35	2,392.4	S	-	SCP
					12-26-91	1045	1,161.35	2,392.4	S	-	SCP
					01-30-92	1047	1,161.46	2,392.3	S	-	SCP
					02-28-92	1041	1,161.47	2,392.3	S	-	SCP
					04-03-92	1417	1,161.36	2,392.4	S	-	SCP
					04-20-92	1202	1,161.45	2,392.4	S	-	SCP
					05-18-92	1230	1,161.34	2,392.5	S	-	SCP
					06-25-92	1037	1,161.39	2,392.4	S	-	SCP
					07-15-92	0908	1,161.39	2,392.4	S	-	SCP
					08-18-92	0919	1,161.17	2,392.6	S	-	SCP
					09-22-92	1203	1,161.31	2,392.5	S	-	SCP
					10-16-92	1113	1,161.27	2,392.5	S	-	SCP
					11-25-92	1114	1,161.27	2,392.5	S	-	SCP
					12-08-92	1120	1,161.15	2,392.6	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-2	364945116235001	UE-25 WT 13	3,387.5	1.00	07-08-83	1520	995.91	2,391.6	V	-	OFR 88-468
					09-06-83	1735	995.68	2,391.8	V	-	OFR 88-468
					09-19-83	1620	995.88	2,391.6	V	-	OFR 88-468
					09-27-83	1330	995.63	2,391.9	V	-	OFR 88-468
					10-18-83	1450	995.76	2,391.7	V	-	OFR 88-468
					10-31-83	1105	995.81	2,391.7	V	-	OFR 88-468
					11-11-83	0945	995.96	2,391.5	V	-	OFR 88-468
					11-29-83	1055	995.86	2,391.6	V	-	OFR 88-468
					12-05-83	1010	995.57	2,391.9	V	-	OFR 88-468
					12-20-83	1025	995.69	2,391.8	V	-	OFR 88-468
					12-27-83	1155	995.87	2,391.6	V	-	OFR 88-468
					01-04-84	1115	996.12	2,391.4	V	-	OFR 88-468
					01-16-84	1115	996.09	2,391.4	V	-	OFR 88-468
					01-24-84	1710	996.27	2,391.2	V	-	OFR 88-468
					01-30-84	1110	995.94	2,391.6	V	-	OFR 88-468
					02-08-84	1255	995.92	2,391.6	V	-	OFR 88-468
					02-13-84	1055	995.94	2,391.6	V	-	OFR 88-468
					02-28-84	1655	995.84	2,391.7	V	-	OFR 88-468
					03-06-84	1715	995.99	2,391.5	V	-	OFR 88-468
					03-09-84	1020	996.02	2,391.5	V	-	OFR 88-468
					03-22-84	1040	995.77	2,391.7	V	-	OFR 88-468
					04-02-84	1605	995.92	2,391.6	V	-	OFR 88-468
					04-20-84	1440	996.02	2,391.5	V	-	OFR 88-468
					05-15-84	1415	995.93	2,391.6	V	-	OFR 88-468
					06-11-84	1500	995.90	2,391.6	V	-	OFR 88-468
					06-26-84	1225	995.98	2,391.5	V	-	OFR 88-468
					08-03-84	1050	995.80	2,391.7	V	-	OFR 88-468
					08-31-84	1055	995.95	2,391.6	V	-	OFR 88-468
					09-07-84	1310	995.88	2,391.6	V	-	OFR 88-468
					09-17-84	1140	996.10	2,391.4	V	-	OFR 88-468
					10-11-84	1005	995.81	2,391.7	V	-	OFR 88-468
					10-30-84	1510	995.93	2,391.6	V	-	OFR 88-468
					11-21-84	0945	995.93	2,391.6	V	-	OFR 88-468
					12-03-84	1105	996.09	2,391.4	V	-	OFR 88-468
					12-18-84	1000	995.84	2,391.7	V	-	OFR 88-468

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-2	364945116235001	UE-25 WT 13	3,387.5	1.00	12-27-84	1030	996.24	2,391.3	V	-	OFR 88-468
					01-14-85	1215	996.09	2,391.4	V	-	OFR 88-468
					01-30-85	1405	996.04	2,391.5	V	-	OFR 88-468
					02-04-85	1425	996.11	2,391.4	V	-	OFR 88-468
					02-11-85	1515	996.31	2,391.2	V	-	OFR 88-468
					02-12-85	0905	996.24	2,391.3	V	-	OFR 91-493
					09-24-85	--	995.83	2,391.7	V	-	OFR 91-493
					09-25-85	--	995.87	2,391.6	V	-	OFR 91-493
					07-10-86	--	995.51	2,392.0	V	-	OFR 91-493
					05-22-87	--	995.44	2,392.1	V	-	OFR 91-493
					11-20-87	--	995.44	2,392.1	V	-	OFR 91-493
					03-15-88	--	995.05	2,392.4	V	-	OFR 91-493
					06-07-88	1447	995.44	2,392.1	S	-	OFR 91-493
					08-05-88	1128	995.82	2,391.7	V	-	OFR 91-493
					06-07-89	1328	995.09	2,392.4	S	-	SCP
					10-03-89	--	995.16	2,392.3	B	-	SCP
					11-02-89	1228	995.26	2,392.2	S	-	SCP
					02-12-90	--	994.84	2,392.7	B	-	SCP
					04-02-90	--	995.30	2,392.2	B	-	SCP
					05-31-90	--	995.13	2,392.4	B	-	SCP
					09-06-90	--	995.33	2,392.2	B	-	SCP
					12-27-90	--	995.30	2,392.2	B	-	SCP
					01-14-91	--	995.30	2,392.2	B	-	SCP
					04-15-91	--	994.80	2,392.7	B	-	SCP
					08-07-91	1318	995.37	2,392.1	S	-	SCP
					12-05-91	--	995.33	2,392.2	B	-	SCP
					03-19-92	1133	995.53	2,392.0	S	-	SCP
					06-10-92	1143	995.41	2,392.1	S	-	SCP
					10-09-92	0928	995.26	2,392.2	B	-	SCP
JF-2a	364938116252102	UE-25p 1 PTH	3,655.5	0.56	10-21-83	--	1,188.81	2,466.7	V	-	OFR 88-468
(Water-level data from OFR 88-468 or OFR 91-493 have been modified because of revised hole-deviation information.)					11-07-83	1735	1,196.62	2,458.9	V	-	OFR 88-468
					11-29-83	1350	1,188.33	2,467.2	V	-	OFR 88-468
					12-07-83	1630	1,188.53	2,467.0	V	-	OFR 88-468
					12-19-83	1350	1,188.38	2,467.1	V	-	OFR 88-468

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-2a	364938116252102	UE-25p 1 PTH	3,655.5	0.56	01-23-84	1425	1,189.32	2,466.2	V	-	OFR 88-468
					01-30-84	1630	1,188.99	2,466.5	V	-	OFR 88-468
					02-07-84	1235	1,188.96	2,466.5	V	-	OFR 88-468
					02-13-84	1615	1,188.58	2,466.9	V	-	OFR 88-468
					03-02-84	1220	1,188.90	2,466.6	V	-	OFR 88-468
					03-18-84	1710	1,189.20	2,466.3	V	-	OFR 88-468
					03-21-84	1530	1,188.80	2,466.7	V	-	OFR 88-468
					03-28-84	1125	1,189.15	2,466.4	V	-	OFR 88-468
					05-02-84	1615	1,188.86	2,466.6	V	-	OFR 88-468
					10-12-84	1235	1,188.74	2,466.8	V	-	OFR 88-468
					03-07-85	--	1,188.57	2,466.9	V	-	OFR 91-493
					09-13-85	--	1,187.98	2,467.5	V	-	OFR 91-493
					07-09-86	--	1,187.68	2,467.8	V	-	OFR 91-493
					05-12-87	--	1,187.26	2,468.2	V	-	OFR 91-493
					02-11-88	--	1,186.77	2,468.7	V	-	OFR 91-493
					06-14-88	1134	1,187.06	2,468.4	S	-	OFR 91-493
					10-24-88	--	1,186.57	2,468.9	V	-	OFR 91-493
					02-15-89	--	1,186.73	2,468.8	B	-	SCP
					06-14-89	--	1,186.73	2,468.8	B	-	SCP
					09-13-89	--	1,186.93	2,468.6	B	-	SCP
					12-28-89	--	1,186.57	2,468.9	S	-	SCP
					01-24-90	1100	1,186.81	2,468.7	S	-	SCP
					04-23-90	1111	1,186.45	2,469.0	S	-	SCP
					05-21-90	1043	1,186.69	2,468.8	S	-	SCP
					05-30-90	1339	1,186.51	2,469.0	S	-	SCP
					06-11-90	0828	1,186.69	2,468.8	S	-	SCP
					10-01-90	--	1,186.86	2,468.6	S	-	SCP
					11-07-90	--	1,186.90	2,468.6	S	-	SCP
					01-16-91	--	1,186.77	2,468.7	S	-	SCP
					03-13-91	--	1,186.70	2,468.8	S	-	SCP
					04-15-91	1202	1,186.80	2,468.7	S	-	SCP
					08-06-91	--	1,186.70	2,468.8	S	-	SCP
					09-26-91	0909	1,186.73	2,468.8	S	-	SCP
					10-16-91	1110	1,186.79	2,468.7	S	-	SCP
					02-12-92	1136	1,186.47	2,469.0	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-2a	364938116252102	UE-25p 1 PTH	3,655.5	0.56	02-19-92	1334	1,186.82	2,468.7	S	-	SCP
					06-17-92	0930	1,186.82	2,468.7	B	-	SCP
					09-02-92	1132	1,187.93	2,467.6	S	-	SCP
					09-03-92	0859	1,187.96	2,467.5	S	-	SCP
					09-24-92	1104	1,187.82	2,467.7	S	-	SCP
					11-17-92	1232	1,187.12	2,468.4	S	-	SCP
J-13	364828116234001	J-13 WW	3,317.9	1.11	12-30-62	0505	926.7	2,391.2	R	-	WSP 1938
					01-01-63	1050	926.8	2,391.1	R	-	WSP 1938
					02-04-63	1520	927.8	2,390.1	R	-	WSP 1938
					11-27-63	1515	928.0	2,389.9	R	-	WSP 1938
					12-17-63	1025	927.9	2,390.0	R	-	WSP 1938
					12-19-63	1310	928.8	2,389.1	R	-	WSP 1938
					02-04-64	--	927.5	2,390.4	R	-	WSP 1938
					02-07-64	--	928.0	2,389.9	R	-	WSP 1938
					03-11-67	--	928.8	2,389.1	R	-	WSP 1938
					04-21-69	--	929.5	2,388.4	R	-	WRI 83-4171
					03-26-71	--	928.5	2,389.4	R	-	PP 712-F
					08-20-80	--	926.5	2,391.4	R	-	WRI 83-4171
					10-31-83	1900	929.20	2,388.7	S	-	WTP
					09-11-86	1115	928.17	2,389.7	S	-	OFR 91-493
					03-24-87	--	928.10	2,389.8	S	-	OFR 91-493
					05-08-87	--	928.37	2,389.5	S	-	OFR 91-493
					12-09-87	--	928.10	2,389.8	S	-	OFR 91-493
					03-04-88	--	928.07	2,389.8	S	-	OFR 91-493
					07-07-88	--	928.10	2,389.8	S	-	OFR 91-493
					10-26-88	--	927.71	2,390.2	S	-	OFR 90-113
					01-18-89	--	927.97	2,389.9	S	-	OFR 91-178
					02-22-89	--	928.14	2,389.8	S	-	OFR 91-178
					03-22-89	--	927.84	2,390.1	S	-	OFR 91-178
					05-30-89	--	928.10	2,389.8	S	-	OFR 91-178
					07-21-89	--	927.87	2,390.0	S	-	OFR 91-178

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
J-13	364828116234001	J-13 WW	3,317.9	1.11	08-14-89	--	927.87	2,390.0	S	-	OFR 91-178
					11-21-89	--	927.87	2,390.0	S	-	OFR 91-178
					12-20-89	--	928.00	2,389.9	S	-	OFR 91-178
					01-25-90	1043	928.20	2,389.7	S	-	SCP
					02-09-90	0954	928.18	2,389.7	S	-	SCP
					03-09-90	1128	927.80	2,390.1	S	-	SCP
					04-20-90	1009	928.02	2,389.9	S	-	SCP
					05-23-90	1050	927.90	2,390.0	S	-	SCP
					06-20-90	0719	928.00	2,389.9	S	-	SCP
					07-10-90	0846	928.18	2,389.7	S	-	SCP
					08-15-90	0940	927.82	2,390.1	S	-	SCP
					09-14-90	0916	927.94	2,390.0	S	-	SCP
					10-29-90	1121	927.80	2,390.1	S	-	SCP
					11-27-90	1352	928.08	2,389.8	S	-	SCP
					12-13-90	1117	928.22	2,389.7	S	-	SCP
					01-31-91	1208	928.16	2,389.7	S	-	SCP
					02-25-91	1059	928.10	2,389.8	S	-	SCP
					03-27-91	1109	927.87	2,390.0	S	-	SCP
					04-24-91	1406	927.23	2,390.7	S	-	SCP
					05-16-91	0933	927.81	2,390.1	S	-	SCP
					06-10-91	1421	927.99	2,389.9	S	-	SCP
					07-25-91	1041	927.85	2,390.0	S	-	SCP
					08-22-91	1021	928.09	2,389.8	S	-	SCP
					09-16-91	0946	928.19	2,389.7	S	-	SCP
					10-25-91	1520	927.81	2,390.1	S	-	SCP
					11-21-91	1149	927.89	2,390.0	S	-	SCP
					12-17-91	1509	927.81	2,390.1	S	-	SCP
					01-28-92	1232	928.01	2,389.9	S	-	SCP
					02-20-92	1041	928.13	2,389.8	S	-	SCP
					02-28-92	1125	928.12	2,389.8	S	-	SCP
					03-11-92	1306	928.15	2,389.8	S	-	SCP
					04-10-92	1125	927.94	2,390.0	S	-	SCP
					05-04-92	0948	928.14	2,389.8	S	-	SCP
					05-13-92	1116	928.03	2,389.9	S	-	SCP
					05-22-92	1047	928.27	2,389.6	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
J-13	364828116234001	J-13 WW	3,317.9	1.11	06-04-92	1113	928.02	2,389.9	S	-	SCP
					06-17-92	1449	928.14	2,389.8	S	-	SCP
					07-14-92	0952	928.03	2,389.9	S	-	SCP
					07-28-92	1239	927.97	2,389.9	S	-	SCP
					08-18-92	1040	929.98	2,387.9	S	R	SCP
					08-31-92	1051	927.82	2,390.1	S	-	SCP
					09-11-92	1003	927.88	2,390.0	S	-	SCP
					09-29-92	0905	927.96	2,389.9	S	-	SCP
					10-15-92	1333	927.88	2,390.0	S	-	SCP
					10-29-92	1014	927.45	2,390.4	S	-	SCP
					11-19-92	1117	927.64	2,390.3	S	-	SCP
					11-30-92	1035	927.98	2,389.9	S	-	SCP
					12-08-92	1217	927.64	2,390.3	S	-	SCP
					12-17-92	0805	927.69	2,390.2	S	-	SCP
J-11	364706116170601	J-11 WW	3,442.8	2.11	03-15-61	1135	1,041.8	2,401.0	V	-	WTP
					03-15-61	1155	1,042.0	2,400.8	V	-	WTP
					03-22-61	1343	1,041.6	2,401.2	V	-	WTP
					04-10-61	1113	1,041.2	2,401.6	V	-	WTP
					08-16-62	1000	1,040.3	2,402.5	V	-	WTP
					11-27-63	1205	1,041.4	2,401.4	V	-	WTP
					02-19-64	1415	1,039.7	2,403.1	R	-	WSP 1938
					02-19-64	1435	1,040.0	2,402.8	R	-	WSP 1938
					07-16-64	2315	1,041.5	2,401.3	V	-	WTP
					10-06-64	1510	1,041.1	2,401.7	V	-	WTP
					11-04-71	1340	1,041.2	2,401.6	V	-	WTP
					08-06-72	1835	1,040.5	2,402.3	V	-	WTP
					01-23-73	0945	1,041.5	2,401.3	V	-	WTP
					03-22-73	--	1,040.7	2,402.1	V	-	WTP
					02-12-90	0930	1,040.41	2,402.4	S	-	SCP
					07-10-90	0922	1,040.76	2,402.0	S	-	SCP
					07-20-90	0811	1,040.56	2,402.2	S	-	SCP
					07-27-90	1140	1,040.69	2,402.1	S	-	SCP
					07-31-90	0814	1,040.60	2,402.2	S	-	SCP
					08-09-90	0722	1,040.66	2,402.1	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
J-11	364706116170601	J-11 WW	3,442.8	2.11	08-15-90	0714	1,040.50	2,402.3	S	-	SCP
					08-21-90	1104	1,040.66	2,402.1	S	-	SCP
					08-27-90	1002	1,040.73	2,402.1	S	-	SCP
					09-14-90	0759	1,040.54	2,402.3	S	-	SCP
					10-19-90	1012	1,040.40	2,402.4	S	-	SCP
					11-19-90	1250	1,040.21	2,402.6	S	-	SCP
					12-13-90	1252	1,040.25	2,402.6	S	-	SCP
					01-24-91	1344	1,040.47	2,402.3	S	-	SCP
					02-28-91	1447	1,039.91	2,402.9	S	-	SCP
					03-27-91	1340	1,040.46	2,402.3	S	-	SCP
					04-19-91	1341	1,040.59	2,402.2	S	-	SCP
					05-07-91	1002	1,040.63	2,402.2	S	-	SCP
					06-10-91	1127	1,040.64	2,402.2	S	-	SCP
					07-23-91	1450	1,040.62	2,402.2	S	-	SCP
					08-22-91	1319	1,040.61	2,402.2	S	-	SCP
					09-16-91	1027	1,040.74	2,402.1	S	-	SCP
					10-31-91	0846	1,040.92	2,401.9	S	-	SCP
					11-26-91	1504	1,040.54	2,402.3	S	-	SCP
					12-16-91	1529	1,040.65	2,402.2	S	-	SCP
					01-31-92	1020	1,040.62	2,402.2	S	-	SCP
					02-20-92	1104	1,040.69	2,402.1	S	-	SCP
					04-06-92	1113	1,040.67	2,402.1	S	-	SCP
					05-04-92	0918	1,040.60	2,402.2	S	-	SCP
					05-21-92	0830	1,040.53	2,402.3	S	-	SCP
					06-17-92	1325	1,040.60	2,402.2	S	-	SCP
					07-16-92	0823	1,040.57	2,402.2	S	-	SCP
					08-19-92	1145	1,040.55	2,402.3	S	-	SCP
					09-11-92	1037	1,040.57	2,402.2	S	-	SCP
					10-30-92	1046	1,040.23	2,402.6	S	-	SCP
					11-25-92	1142	1,040.81	2,402.0	S	-	SCP
					12-17-92	0906	1,040.40	2,402.4	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
J-12	364554116232401	J-12 WW	3,128.4	5.04	03-26-71	--	741.5	2,386.9	R	-	PP 712-F
					04-26-74	1030	740.9	2,387.5	V	-	WTP
					04-27-74	1025	742.0	2,386.4	V	-	WTP
					04-28-74	1026	741.9	2,386.5	V	-	WTP
					04-28-74	1820	742.0	2,386.4	V	-	WTP
					04-29-74	1520	742.0	2,386.4	V	-	WTP
					04-30-74	1135	742.1	2,386.3	V	-	WTP
					04-30-74	1535	742.0	2,386.4	V	R	WTP
					05-01-74	0816	742.1	2,386.3	V	-	WTP
					05-01-74	1120	742.1	2,386.3	V	R	WTP
					05-28-80	0724	739.86	2,388.5	V	-	WTP
					02-03-81	1540	739.49	2,388.9	V	-	WTP
					12-05-83	0845	742.11	2,386.3	V	-	WTP
					01-25-90	1015	740.29	2,388.1	S	-	SCP
					02-08-90	1053	740.24	2,388.2	S	-	SCP
					03-09-90	1045	739.96	2,388.4	S	-	SCP
					04-17-90	1054	740.00	2,388.4	S	-	SCP
					05-30-90	1246	740.08	2,388.3	S	-	SCP
					06-18-90	1041	740.29	2,388.1	S	-	SCP
					07-10-90	0807	740.26	2,388.1	S	-	SCP
					08-20-90	1018	740.12	2,388.3	S	-	SCP
					09-14-90	0838	740.14	2,388.3	S	-	SCP
					10-29-90	1046	739.99	2,388.4	S	-	SCP
					11-27-90	1434	740.26	2,388.1	S	-	SCP
					12-13-90	1015	739.98	2,388.4	S	-	SCP
					02-25-91	1019	740.31	2,388.1	S	-	SCP
					04-24-91	1314	740.14	2,388.3	S	-	SCP
					05-14-91	1013	740.05	2,388.4	S	-	SCP
					06-10-91	1343	740.13	2,388.3	S	-	SCP
					07-23-91	1017	740.18	2,388.2	S	-	SCP
					08-21-91	1408	740.17	2,388.2	S	-	SCP
					09-12-91	1356	740.13	2,388.3	S	-	SCP
					10-25-91	1046	740.03	2,388.4	S	-	SCP
					11-21-91	1121	739.99	2,388.4	S	-	SCP
					12-17-91	1614	739.90	2,388.5	S	-	SCP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
J-12	364554116232401	J-12 WW	3,128.4	5.04	05-22-92	1143	740.17	2,388.2	S	-	SCP
					06-04-92	1138	740.00	2,388.4	S	-	SCP
					06-17-92	1414	740.10	2,388.3	S	-	SCP
					07-16-92	1023	740.12	2,388.3	S	-	SCP
					07-28-92	1305	740.10	2,388.3	S	-	SCP
					08-18-92	1125	740.06	2,388.3	S	-	SCP
					08-31-92	1019	739.97	2,388.4	S	-	SCP
					09-11-92	0931	740.08	2,388.3	S	-	SCP
					09-28-92	1005	740.10	2,388.3	S	-	SCP
					10-15-92	1300	740.14	2,388.3	S	-	SCP
					10-29-92	0952	739.83	2,388.6	S	-	SCP
					11-19-92	1018	740.05	2,388.4	S	-	SCP
					11-19-92	1100	740.07	2,388.3	V	-	EMP
					11-19-92	1110	740.05	2,388.4	V	-	EMP
					11-30-92	0914	740.18	2,388.2	S	-	SCP
					12-08-92	1247	739.96	2,388.4	S	-	SCP
					12-17-92	0836	739.87	2,388.5	S	-	SCP
JF-3	364528116232201	JF-3	3,098.3	2.27	01-16-92	0924	710.27	2,388.0	V	-	EMP
					01-16-92	0925	710.25	2,388.0	V	-	EMP
					01-16-92	0927	710.23	2,388.1	V	-	EMP
					01-17-92	0840	709.70	2,388.6	V	-	EMP
					01-17-92	0845	709.70	2,388.6	V	-	EMP
					01-17-92	0900	709.75	2,388.6	V	-	EMP
					01-17-92	0905	709.75	2,388.6	V	-	EMP
					01-22-92	0851	709.91	2,388.4	V	-	EMP
					01-22-92	0852	709.97	2,388.3	V	-	EMP
					01-22-92	0853	710.02	2,388.3	V	-	EMP
					01-22-92	0855	710.02	2,388.3	V	-	EMP
					01-23-92	1050	709.9	2,388.4	T	-	SCP
					01-27-92	0850	710.20	2,388.1	V	-	EMP
					01-29-92	1205	710.3	2,388.0	T	-	SCP
					01-29-92	1215	710.30	2,388.0	V	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-3	364528116232201	JF-3	3,098.3	2.27	02-21-92	0800	710.19	2,388.1	V	-	EMP
					02-21-92	1311	712.22	2,386.1	V	P	EMP
					02-21-92	1321	712.22	2,386.1	V	P	EMP
					02-21-92	1326	710.30	2,388.0	V	-	EMP
					02-21-92	1327	710.20	2,388.1	V	-	EMP
					02-24-92	1330	710.18	2,388.1	V	-	EMP
					02-25-92	1230	710.23	2,388.1	V	-	EMP
					02-25-92	1300	710.12	2,388.2	V	-	EMP
					02-26-92	0857	710.28	2,388.0	V	-	EMP
					02-26-92	0906	710.26	2,388.0	V	-	EMP
					02-26-92	1200	710.29	2,388.0	V	-	EMP
					02-26-92	1445	710.08	2,388.2	V	-	EMP
					02-26-92	1505	712.07	2,386.2	V	P	EMP
					02-26-92	1725	710.06	2,388.2	V	-	EMP
					02-27-92	0900	710.23	2,388.1	V	-	EMP
					02-27-92	1050	710.25	2,388.0	V	-	EMP
					03-04-92	0645	710.02	2,388.3	V	-	EMP
					03-04-92	0646	710.02	2,388.3	V	-	EMP
					03-09-92	1400	710.22	2,388.1	V	-	EMP
					03-12-92	0850	710.24	2,388.1	V	-	EMP
					04-16-92	1530	710.04	2,388.3	V	-	EMP
					05-13-92	1025	710.01	2,388.3	V	-	EMP
					05-13-92	1037	710.04	2,388.3	V	-	EMP
					05-28-92	1033	709.97	2,388.3	V	-	EMP
					06-03-92	1023	710.04	2,388.3	V	-	EMP
					06-03-92	1030	710.06	2,388.2	V	-	EMP
					06-03-92	1045	710.06	2,388.2	V	-	EMP
					06-23-92	0954	710.09	2,388.2	V	-	EMP
					06-29-92	1150	709.95	2,388.3	V	-	EMP
					07-24-92	0949	710.16	2,388.1	V	-	EMP
					08-25-92	1340	710.25	2,388.0	V	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
JF-3	364528116232201	JF-3	3,098.3	2.27	08-25-92	1341	710.25	2,388.0	V	-	EMP
					09-17-92	1509	710.07	2,388.2	V	-	EMP
					09-17-92	1518	710.10	2,388.2	V	-	EMP
					10-22-92	1415	710.26	2,388.0	V	-	EMP
					11-19-92	1211	710.00	2,388.3	V	-	EMP
					12-15-92	1647	710.03	2,388.3	V	-	EMP
RV-1	363815116175901	TW-5	3,056.0	1.60	07-21-62	1030	674.5	2,381.5	V	I	WTP
(Water-level data from TEI-872 modified because of revised height of measurement point.)					08-12-62	1050	675.0	2,381.0	V	I	WTP
					08-17-62	1450	668.6	2,387.4	V	I	WTP
					08-17-62	1525	668.5	2,387.5	V	I	WTP
					08-29-62	1025	674.5	2,381.5	V	I	WTP
					08-29-62	1300	674.6	2,381.4	V	I	WTP
					11-01-62	1200	674.7	2,381.3	V	I	WTP
					11-01-62	1559	663.6	2,392.4	V	I	WTP
					12-10-63	1610	674.4	2,381.6	V	I	TEI-872
					11-06-71	1238	677.27	2,378.7	V	-	WTP
					07-24-72	1445	677.01	2,379.0	V	-	WTP
					01-16-80	1330	677.50	2,378.5	V	-	WTP
					09-10-90	--	677.0	2,379.0	T	-	EMP
					04-15-91	--	676.7	2,379.3	T	-	EMP
					02-19-92	--	676.81	2,379.2	V	-	EMP
					03-18-92	--	676.83	2,379.2	V	-	EMP
					04-14-92	--	676.89	2,379.1	V	-	EMP
					05-18-92	1600	676.84	2,379.2	V	-	EMP
					06-16-92	1620	676.92	2,379.1	V	-	EMP
					07-22-92	0840	677.63	2,378.4	V	-	EMP
					08-19-92	0850	677.77	2,378.2	V	-	EMP
					09-18-92	0815	678.02	2,378.0	V	-	EMP
					10-22-92	0900	678.12	2,377.9	V	-	EMP
					11-17-92	0940	678.05	2,378.0	V	-	EMP
					12-16-92	0815	678.19	2,377.8	V	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
MV-1	363530116021401	Army 1 WW	3,154	0.30	07-17-62	1103	785.6	2,368.4	V	-	WTP
					07-17-62	1530	784.8	2,369.2	V	R	WTP
					09-11-62	0930	784.0	2,370.0	V	-	WTP
					01-25-63	1450	783.6	2,370.4	V	-	WTP
					11-07-63	1015	785.0	2,369.0	V	-	WTP
					03-18-71	0840	788.7	2,365.3	V	R	WTP
					10-26-71	1005	786.8	2,367.2	V	R	WTP
					08-12-72	1700	791.2	2,362.8	V	R	WTP
					10-15-87	1115	784.3	2,369.7	V	-	WTP
AD-1	364141116351401	NA-6 Well, BGMW-10	2,627.9	1.70	08-02-86	--	268.9	2,359.0	T	-	WRI 89-4101
					08-03-86	--	269.6	2,358.3	T	-	USGS-NV
					10-28-86	--	269.6	2,358.3	T	-	USGS-NV
					01-11-87	--	269.34	2,358.6	S	-	USGS-NV
					02-22-90	--	269.30	2,358.6	S	-	EMP
					05-01-90	--	269.78	2,358.1	S	-	EMP
					06-20-90	--	269.36	2,358.5	S	-	EMP
					07-26-90	--	269.59	2,358.3	S	-	EMP
					09-21-90	--	269.38	2,358.5	S	-	EMP
					04-10-91	--	268.48	2,359.4	S	-	EMP
					02-20-92	--	269.36	2,358.5	V	-	EMP
					03-25-92	--	269.28	2,358.6	S	-	EMP
					04-15-92	--	269.45	2,358.4	S	-	EMP
					05-18-92	--	269.50	2,358.4	S	-	EMP
					06-17-92	1242	269.42	2,358.5	S	-	EMP
					07-21-92	1610	269.32	2,358.6	S	-	EMP
					08-19-92	1030	269.38	2,358.5	S	-	EMP
					09-18-92	0915	269.45	2,358.4	S	-	EMP
					10-21-92	1330	269.35	2,358.6	S	-	EMP
					11-15-92	1115	269.46	2,358.4	S	-	EMP
					12-15-92	1458	269.27	2,358.6	S	-	EMP
AD-2	363830116241401	Airport Well	2,638.8	1.05	01-15-87	--	324.50	2,314.3	S	-	USGS-NV
					02-22-90	--	324.5	2,314.3	T	-	EMP
					05-01-90	--	324.32	2,314.5	S	-	EMP
					06-20-90	--	324.49	2,314.3	S	-	EMP
					07-26-90	--	324.60	2,314.2	S	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-2	363830116241401	Airport Well	2,638.8	1.05	04-09-91	--	324.15	2,314.6	V	-	EMP
					02-19-92	--	324.44	2,314.4	V	-	EMP
					03-18-92	--	324.53	2,314.3	V	-	EMP
					03-24-92	--	324.43	2,314.4	V	-	EMP
					04-14-92	--	324.43	2,314.4	V	-	EMP
					05-18-92	2034	324.24	2,314.6	V	-	EMP
					06-16-92	1423	324.52	2,314.3	V	-	EMP
					07-21-92	1501	324.37	2,314.4	V	-	EMP
					08-18-92	1620	324.33	2,314.5	V	-	EMP
					09-17-92	0857	324.56	2,314.2	V	-	EMP
					10-21-92	1055	324.47	2,314.3	V	-	EMP
					11-17-92	1150	324.39	2,314.4	V	-	EMP
					12-15-92	1630	324.39	2,314.4	V	-	EMP
AD-2a	363835116234001	NDOT Well	2,656.8	0.40	04-09-91	--	342.29	2,314.5	S	-	EMP
					09-03-91	--	342.80	2,314.0	S	-	EMP
					11-22-91	--	342.60	2,314.2	S	-	EMP
					12-11-91	--	342.28	2,314.5	S	-	EMP
					01-14-92	--	342.27	2,314.5	S	-	EMP
					02-19-92	--	342.25	2,314.6	S	-	EMP
					03-18-92	--	342.11	2,314.7	S	-	EMP
					04-14-92	--	342.23	2,314.6	S	-	EMP
					04-21-92	--	342.03	2,314.8	S	-	EMP
					05-18-92	2020	342.28	2,314.5	S	-	EMP
					06-16-92	1401	342.71	2,314.1	S	-	EMP
					07-21-92	1524	342.77	2,314.0	S	-	EMP
					08-18-92	1545	342.77	2,314.0	S	-	EMP
					09-18-92	0750	342.93	2,313.9	S	R	EMP
					10-21-92	1435	342.54	2,314.3	S	-	EMP
					11-20-92	1635	342.34	2,314.5	S	-	EMP
					12-11-92	0830	342.10	2,314.7	S	-	EMP
AD-3	363434116354001	DeFir Well	2,385.4	0.60	07-02-62	--	111.30	2,274.1	S	-	WRI 89-4101
					03-04-64	--	114.00	2,271.4	Z	-	WRI 89-4101
					07-09-64	--	114.08	2,271.3	Z	-	WRI 89-4101
					09-02-64	--	114.13	2,271.3	Z	-	WRI 89-4101
					10-24-64	--	113.00	2,272.4	Z	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-3	363434116354001	DeFir Well	2,385.4	0.60	02-12-65	--	113.00	2,272.4	Z	-	WRI 89-4101
					05-20-65	--	113.00	2,272.4	Z	-	WRI 89-4101
					08-17-65	--	113.11	2,272.3	Z	-	WRI 89-4101
					11-23-65	--	113.02	2,272.4	Z	-	WRI 89-4101
					03-15-66	--	113.10	2,272.3	Z	-	WRI 89-4101
					06-16-66	--	113.89	2,271.5	Z	-	WRI 89-4101
					09-22-66	--	113.28	2,272.1	Z	-	WRI 89-4101
					01-31-67	--	113.28	2,272.1	Z	-	WRI 89-4101
					03-21-67	--	113.14	2,272.3	Z	-	WRI 89-4101
					06-15-67	--	113.36	2,272.0	Z	-	WRI 89-4101
					09-29-67	--	113.41	2,272.0	Z	-	WRI 89-4101
					01-10-68	--	113.60	2,271.8	Z	-	WRI 89-4101
					04-16-68	--	113.27	2,272.1	Z	-	WRI 89-4101
					09-24-68	--	113.43	2,272.0	Z	-	WRI 89-4101
					01-14-69	--	113.64	2,271.8	Z	-	WRI 89-4101
					06-09-70	--	113.72	2,271.7	Z	-	WRI 89-4101
					10-30-70	--	113.70	2,271.7	Z	-	WRI 89-4101
					10-12-71	--	113.95	2,271.4	Z	-	WRI 89-4101
					03-08-72	--	113.69	2,271.7	Z	-	WRI 89-4101
					11-08-72	--	113.53	2,271.9	Z	-	WRI 89-4101
					03-13-73	--	114.17	2,271.2	Z	S	WRI 89-4101
					08-23-73	--	114.66	2,270.7	Z	-	WRI 89-4101
					02-26-74	--	115.78	2,269.6	Z	-	WRI 89-4101
					11-14-74	--	115.50	2,269.9	Z	-	WRI 89-4101
					04-30-75	--	115.83	2,269.6	Z	-	WRI 89-4101
					09-26-75	--	117.02	2,268.4	Z	-	WRI 89-4101
					07-20-76	--	119.24	2,266.2	Z	-	WRI 89-4101
					07-28-78	--	120.10	2,265.3	Z	-	WRI 89-4101
					12-28-78	--	118.25	2,267.2	Z	-	WRI 89-4101
					12-20-79	--	119.35	2,266.0	Z	-	WRI 89-4101
					04-01-80	--	126.20	2,259.2	Z	-	WRI 89-4101
					07-18-80	--	127.35	2,258.0	Z	-	WRI 89-4101
					09-12-80	--	125.03	2,260.4	Z	-	WRI 89-4101
					12-18-80	--	120.00	2,265.4	Z	-	WRI 89-4101
					09-03-81	--	124.70	2,260.7	Z	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-3	363434116354001	DeFir Well	2,385.4	0.60	12-09-81	--	132.89	2,252.5	Z	S	WRI 89-4101
					01-10-87	--	121.8	2,263.6	T	-	WRI 89-4101
					02-22-90	--	121.5	2,263.9	T	-	EMP
					05-01-90	--	121.82	2,263.6	S	-	EMP
					04-09-91	--	123.69	2,261.7	S	-	EMP
					04-16-91	--	124.69	2,260.7	S	-	EMP
					02-19-92	--	120.70	2,264.7	V	-	EMP
					03-18-92	--	120.70	2,264.7	V	-	EMP
					04-14-92	--	120.62	2,264.8	V	-	EMP
					05-19-92	0805	120.60	2,264.8	V	-	EMP
					06-16-92	1225	120.66	2,264.7	V	-	EMP
					07-21-92	1313	120.66	2,264.7	V	-	EMP
					08-20-92	1414	120.35	2,265.0	V	-	EMP
					09-17-92	0940	120.41	2,265.0	V	-	EMP
					10-21-92	0950	120.40	2,265.0	V	-	EMP
					11-17-92	1345	120.33	2,265.1	V	-	EMP
					12-16-92	1015	120.38	2,265.0	V	-	EMP
AD-4	363428116240301	Cooks West Well	2,474.6	1.20	03-18-87	--	113.86	2,360.7	S	R	USGS-NV
					09-20-90	--	111.19	2,363.4	S	-	EMP
					04-09-91	--	111.35	2,363.2	S	-	EMP
AD-4a	363428116234701	Cooks East Well	2,477.8	1.00	03-16-87	--	117.90	2,359.9	S	-	USGS-NV
					06-21-90	--	121.10	2,356.7	S	R	EMP
					09-19-90	--	122.98	2,354.8	S	-	EMP
					09-20-90	--	120.05	2,357.8	S	-	EMP
					04-09-91	--	142.49	2,335.3	S	R	EMP
					11-22-91	--	117.30	2,360.5	V	-	EMP
					02-19-92	--	117.90	2,359.9	V	-	EMP
					03-18-92	--	118.00	2,359.8	V	-	EMP
					04-14-92	--	118.02	2,359.8	V	-	EMP
					05-19-92	1645	117.97	2,359.8	V	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-4a	363428116234701	Cooks East Well	2,477.8	1.00	06-16-92	1255	118.27	2,359.5	V	-	EMP
					07-21-92	1345	114.75	2,363.0	V	-	EMP
					08-18-92	1705	115.09	2,362.7	V	-	EMP
					09-17-92	1108	115.66	2,362.1	V	-	EMP
					10-21-92	1030	116.22	2,361.6	V	-	EMP
					11-17-92	1215	116.60	2,361.2	V	-	EMP
					12-16-92	0940	117.15	2,360.6	V	-	EMP
AD-5	363310116294001	USBLM Well	2,376.4	0.00	08-27-53	--	104.0	2,272.4	R	-	RSR 14
					02-12-55	--	103.10	2,273.3	S	-	WRI 89-4101
					05-24-56	--	103.1	2,273.3	R	-	RSR 14
					08-28-57	--	103.2	2,273.2	R	-	RSR 14
					02-15-58	--	103.4	2,273.0	R	-	RSR 14
					09-04-58	--	103.7	2,272.7	R	-	RSR 14
					09-15-59	--	104.73	2,271.7	S	-	WRI 89-4101
					03-07-61	--	104.40	2,272.0	S	-	WRI 89-4101
					06-28-62	--	108.5	2,267.9	R	-	RSR 14
					02-24-63	--	107.61	2,268.8	S	-	WRI 89-4101
					02-15-65	--	107.04	2,269.4	S	-	WRI 89-4101
					02-14-66	--	106.68	2,269.7	S	-	WRI 89-4101
					02-16-67	--	107.24	2,269.2	S	-	WRI 89-4101
					02-13-68	--	108.03	2,268.4	S	-	WRI 89-4101
					02-24-69	--	108.04	2,268.4	S	-	WRI 89-4101
					02-15-70	--	107.63	2,268.8	S	-	WRI 89-4101
					02-10-71	--	108.10	2,268.3	S	-	WRI 89-4101
					02-11-72	--	110.48	2,265.9	S	-	WRI 89-4101
					03-20-73	--	110.89	2,265.5	S	-	WRI 89-4101
					01-31-74	--	110.12	2,266.3	S	-	WRI 89-4101
					02-24-75	--	110.38	2,266.0	S	-	WRI 89-4101
					03-05-76	--	111.19	2,265.2	S	-	WRI 89-4101
					03-08-77	--	111.14	2,265.3	S	-	WRI 89-4101
					03-11-78	--	110.97	2,265.4	S	-	WRI 89-4101
					03-07-79	--	111.22	2,265.2	S	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-5	363310116294001	USBLM Well	2,376.4	0.00	03-19-80	--	111.94	2,264.5	S	-	WRI 89-4101
					03-04-81	--	113.25	2,263.2	S	-	WRI 89-4101
					03-18-82	--	113.82	2,262.6	S	-	WRI 89-4101
					03-24-83	--	114.55	2,261.8	S	-	WRI 89-4101
					04-15-86	--	116.24	2,260.2	S	-	WRI 89-4101
					03-16-87	--	116.54	2,259.9	S	-	WRI 89-4101
					04-18-88	--	117.11	2,259.3	S	-	USGS-NV
					04-12-89	--	117.90	2,258.5	S	-	USGS-NV
					02-22-90	--	116.81	2,259.6	S	-	EMP
					03-20-90	--	116.91	2,259.5	S	-	EMP
					05-01-90	--	117.12	2,259.3	S	-	EMP
					06-20-90	--	119.25	2,257.2	S	-	EMP
					07-26-90	--	121.24	2,255.2	S	-	EMP
					09-17-90	--	118.87	2,257.5	S	-	EMP
					03-28-91	1205	118.34	2,258.1	S	-	USGS-NV
					04-09-91	--	118.14	2,258.3	S	-	EMP
					02-19-92	--	118.47	2,257.9	S	-	EMP
					03-18-92	--	119.42	2,257.0	S	-	EMP
					04-14-92	--	119.87	2,256.5	S	-	EMP
					05-19-92	1623	119.21	2,257.2	S	-	EMP
					06-16-92	1201	120.72	2,255.7	S	-	EMP
					07-21-92	1245	120.22	2,256.2	S	-	EMP
					08-20-92	1355	119.30	2,257.1	S	-	EMP
					09-17-92	1012	120.44	2,256.0	S	-	EMP
					10-21-92	0930	119.59	2,256.8	S	-	EMP
					11-17-92	1248	119.31	2,257.1	S	-	EMP
					12-11-92	1145	119.04	2,257.4	S	-	EMP
AD-6	363213116133800	Tracer Well 3	2,402.3	0.40	11-21-66	--	40.94	2,361.4	S	-	OFR 474-98
					03-15-87	--	41.78	2,360.5	S	-	WRI 89-4101
					02-22-90	--	41.76	2,360.5	S	-	EMP
					05-01-90	--	41.68	2,360.6	S	-	EMP
					06-21-90	--	41.81	2,360.5	S	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-6	363213116133800	Tracer Well 3	2,402.3	0.40	07-26-90	--	41.79	2,360.5	S	-	EMP
					04-09-91	--	41.82	2,360.5	S	-	EMP
					11-22-91	--	41.93	2,360.4	S	-	EMP
					02-19-92	--	41.87	2,360.4	S	-	EMP
					03-18-92	--	41.78	2,360.5	S	-	EMP
					04-14-92	--	41.74	2,360.6	S	-	EMP
					05-18-92	1017	41.90	2,360.4	S	-	EMP
					06-16-92	1621	41.90	2,360.4	S	-	EMP
					07-29-92	0824	41.69	2,360.6	S	-	EMP
					08-25-92	1056	41.71	2,360.6	S	-	EMP
					09-01-92	0834	41.54	2,360.8	S	-	EMP
					09-17-92	1302	41.48	2,360.8	S	-	EMP
					10-22-92	0755	41.55	2,360.8	S	-	EMP
					11-18-92	1615	41.40	2,360.9	S	-	EMP
					12-15-92	1018	41.35	2,361.0	S	-	EMP
AD-7	363009116302701	Hallowell Well	2,305.0	0.20	07-05-62	--	51.40	2,253.6	R	-	RSR 14
					03-04-64	--	50.76	2,254.2	Z	-	WRI 89-4101
					07-09-64	--	50.87	2,254.1	Z	-	WRI 89-4101
					09-02-64	--	50.46	2,254.5	Z	-	WRI 89-4101
					10-29-64	--	51.32	2,253.7	Z	-	WRI 89-4101
					02-12-65	--	50.94	2,254.1	Z	-	WRI 89-4101
					05-20-65	--	51.32	2,253.7	Z	-	WRI 89-4101
					08-17-65	--	52.76	2,252.2	Z	-	WRI 89-4101
					11-23-65	--	51.60	2,253.4	Z	-	WRI 89-4101
					03-15-66	--	52.48	2,252.5	Z	-	WRI 89-4101
					06-16-66	--	53.04	2,252.0	Z	-	WRI 89-4101
					09-22-66	--	53.40	2,251.6	Z	-	WRI 89-4101
					01-31-67	--	51.33	2,253.7	Z	-	WRI 89-4101
					03-21-67	--	52.80	2,252.2	Z	-	WRI 89-4101
					06-15-67	--	53.07	2,251.9	Z	-	WRI 89-4101
					09-29-67	--	53.49	2,251.5	Z	-	WRI 89-4101
					01-10-68	--	51.68	2,253.3	Z	-	WRI 89-4101
					04-16-68	--	51.44	2,253.6	Z	-	WRI 89-4101
					09-24-68	--	52.88	2,252.1	Z	-	WRI 89-4101
					01-14-69	--	52.49	2,252.5	Z	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-7	363009116302701	Hallowell Well	2,305.0	0.20	06-09-70	--	52.55	2,252.4	Z	-	WRI 89-4101
					10-12-71	--	53.61	2,251.4	Z	-	WRI 89-4101
					03-08-72	--	50.91	2,254.1	Z	-	WRI 89-4101
					11-08-72	--	52.35	2,252.6	Z	-	WRI 89-4101
					02-26-73	--	52.72	2,252.3	Z	-	WRI 89-4101
					03-13-73	--	51.50	2,253.5	Z	-	WRI 89-4101
					08-23-73	--	52.57	2,252.4	Z	-	WRI 89-4101
					11-14-74	--	52.88	2,252.1	Z	-	WRI 89-4101
					04-30-75	--	53.22	2,251.8	Z	-	WRI 89-4101
					09-26-75	--	53.61	2,251.4	Z	-	WRI 89-4101
					08-16-78	--	57.47	2,247.5	Z	-	WRI 89-4101
					12-28-78	--	59.65	2,245.4	Z	-	WRI 89-4101
					04-01-80	--	59.30	2,245.7	Z	-	WRI 89-4101
					07-18-80	--	61.49	2,243.5	Z	-	WRI 89-4101
					09-12-80	--	63.30	2,241 7	Z	-	WRI 89-4101
					12-18-80	--	61.98	2,243.0	Z	-	WRI 89-4101
					09-01-81	--	66.98	2,238.0	Z	-	WRI 89-4101
					12-09-81	--	64.65	2,240.4	Z	-	WRI 89-4101
					03-17-83	--	64.15	2,240.8	Z	-	WRI 89-4101
					06-22-83	--	68.94	2,236.1	Z	-	WRI 89-4101
					09-20-83	--	70.71	2,234.3	Z	-	WRI 89-4101
					03-01-84	--	65.37	2,239.6	Z	-	WRI 89-4101
					03-20-85	--	68.35	2,236.6	Z	-	WRI 89-4101
					07-23-85	--	69.53	2,235.5	Z	-	WRI 89-4101
					12-10-85	--	68.56	2,236.4	Z	-	WRI 89-4101
					03-21-86	--	66.69	2,238.3	Z	-	NDWR
					07-01-86	--	70.49	2,234.5	Z	-	NDWR
					12-23-86	--	66.88	2,238.1	Z	-	NDWR
					03-10-87	--	65.48	2,239.5	Z	-	NDWR
					03-08-88	--	65.10	2,239.9	Z	-	NDWR
					10-19-88	--	64.92	2,240.1	Z	-	NDWR
					10-17-89	--	62.88	2,242.1	Z	-	NDWR
					02-22-90	--	61.89	2,243.1	S	-	EMP
					03-27-90	--	61.82	2,243.2	Z	-	NDWR
					05-01-90	--	61.84	2,243.2	S	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-7	363009116302701	Hallowell Well	2,305.0	0.20	06-20-90	--	61.95	2,243.0	S	-	EMP
					07-26-90	--	62.38	2,242.6	S	-	EMP
					09-17-90	--	62.38	2,242.6	S	-	EMP
					04-09-91	--	61.57	2,243.4	S	-	EMP
					10-17-91	--	64.26	2,240.7	Z	-	NDWR
					02-18-92	--	62.50	2,242.5	S	-	EMP
					03-10-92	--	63.82	2,241.2	Z	-	NDWR
					03-18-92	--	62.51	2,242.5	S	-	EMP
					04-14-92	--	62.73	2,242.3	S	-	EMP
					05-19-92	1716	64.13	2,240.9	S	-	EMP
					06-16-92	1131	64.84	2,240.2	S	-	EMP
					07-21-92	1221	65.98	2,239.0	S	-	EMP
					08-20-92	1336	66.40	2,238.6	S	-	EMP
					09-17-92	1040	66.68	2,238.3	S	-	EMP
					10-21-92	0905	66.19	2,238.8	S	-	EMP
					11-17-92	1410	64.80	2,240.2	S	-	EMP
					11-19-92	--	64.90	2,240.1	Z	-	NDWR
					12-16-92	1050	64.29	2,240.7	S	-	EMP
AD-8	362929116085701	Cherry Patch Well	2,394.3	0.60	02-04-60	--	36.68	2,357.6	S	-	WRI 89-4101
					03-11-61	--	36.66	2,357.6	S	-	WRI 89-4101
					03-24-63	--	37.00	2,357.3	S	-	WRI 89-4101
					02-21-64	--	37.58	2,356.7	S	-	WRI 89-4101
					02-16-65	--	33.24	2,361.1	S	-	WRI 89-4101
					02-14-66	--	33.77	2,360.5	S	-	WRI 89-4101
					02-16-67	--	33.71	2,360.6	S	-	WRI 89-4101
					02-17-68	--	34.03	2,360.3	S	-	WRI 89-4101
					02-24-69	--	33.53	2,360.8	S	-	WRI 89-4101
					02-15-70	--	33.67	2,360.6	S	-	WRI 89-4101
					02-10-71	--	33.96	2,360.3	S	-	WRI 89-4101
					02-11-72	--	34.89	2,359.4	S	-	WRI 89-4101
					03-20-73	--	34.98	2,359.3	S	-	WRI 89-4101
					01-31-74	--	34.73	2,359.6	S	-	WRI 89-4101
					03-05-76	--	34.37	2,359.9	S	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-8	362929116085701	Cherry Patch Well	2,394.3	0.60	03-11-78	--	35.15	2,359.2	S	-	WRI 89-4101
					03-07-79	--	35.09	2,359.2	S	-	WRI 89-4101
					03-19-80	--	35.19	2,359.1	S	-	WRI 89-4101
					03-04-81	--	34.96	2,359.3	S	-	WRI 89-4101
					03-18-82	--	35.24	2,359.1	S	-	WRI 89-4101
					03-24-83	--	37.75	2,356.6	S	-	WRI 89-4101
					04-15-86	--	35.64	2,358.7	S	-	WRI 89-4101
					03-15-87	--	35.51	2,358.8	S	-	WRI 89-4101
					04-18-88	--	35.05	2,359.2	S	-	USGS-NV
					04-13-89	--	35.01	2,359.3	S	-	USGS-NV
					02-21-90	--	34.99	2,359.3	S	-	EMP
					03-20-90	--	34.94	2,359.4	S	-	USGS-NV
					05-02-90	--	36.35	2,358.0	S	-	EMP
					07-26-90	--	35.47	2,358.8	S	P	EMP
					09-21-90	--	33.64	2,360.7	S	R	EMP
					03-28-91	1010	34.65	2,359.6	S	-	USGS-NV
					04-09-91	--	33.23	2,361.1	S	-	EMP
					08-31-91	--	33.99	2,360.3	S	-	EMP
					02-17-92	--	35.18	2,359.1	S	-	EMP
					03-24-92	--	34.98	2,359.3	S	-	EMP
					04-15-92	--	33.35	2,361.0	S	-	EMP
					05-20-92	--	33.99	2,360.3	S	-	EMP
					06-17-92	0736	34 88	2,359.4	S	-	EMP
					07-22-92	0725	35.15	2,359.2	S	-	EMP
					08-18-92	0805	35.22	2,359.1	S	-	EMP
					09-18-92	0844	35.45	2,358.8	S	-	EMP
					10-27-92	1052	34.93	2,359.4	S	-	EMP
					11-17-92	0915	35.13	2,359.2	S	-	EMP
					12-15-92	1000	34.90	2,359.4	S	-	EMP
AD-9	362848116264201	Gilgans North Well	2,264.8	-0.10	01-10-68	--	55.94	2,208.9	Z	-	WRI 89-4101
(Water-level data from 1968, except NDWR measurements, are listed with U.S. Geological Survey site identification 362835116264101 in WRI 89-4101.)					04-16-68	--	56.22	2,208.6	Z	-	WRI 89-4101
					09-24-68	--	54.90	2,209.9	Z	-	WRI 89-4101
					01-01-69	--	55.76	2,209.0	Z	-	WRI 89-4101
					06-09-70	--	61.53	2,303.0	Z	-	WRI 89-4101

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-9	362848116264201	Gilgans North Well	2,264.8	-0.10	10-29-70	--	65.20	2,199.6	Z	-	WRI 89-4101
					03-09-72	--	64.71	2,200.1	Z	-	WRI 89-4101
					11-08-72	--	64.92	2,199.9	Z	-	NDWR
					03-13-73	--	64.82	2,200.0	Z	-	WRI 89-4101
					08-23-73	--	64.28	2,200.5	Z	-	WRI 89-4101
					02-26-74	--	64.11	2,200.7	Z	-	WRI 89-4101
					08-16-78	--	62.60	2,202.2	Z	-	WRI 89-4101
					12-28-78	--	62.54	2,202.3	Z	-	WRI 89-4101
					12-20-79	--	73.09	2,191.7	Z	-	WRI 89-4101
					04-01-80	--	66.60	2,198.2	Z	-	WRI 89-4101
					07-18-80	--	77.88	2,186.9	Z	-	WRI 89-4101
					09-12-80	--	75.30	2,189.5	Z	-	WRI 89-4101
					09-01-81	--	82.10	2,182.7	Z	-	WRI 89-4101
					12-09-81	--	69.57	2,195.2	Z	-	WRI 89-4101
					03-17-83	--	66.90	2,197.9	Z	-	WRI 89-4101
					06-22-83	--	66.80	2,198.0	Z	-	WRI 89-4101
					09-20-83	--	68.41	2,196.4	Z	-	WRI 89-4101
					03-01-84	--	66.40	2,198.4	Z	-	WRI 89-4101
					03-20-85	--	66.17	2,198.6	Z	-	WRI 89-4101
					07-23-85	--	70.22	2,194.6	Z	-	WRI 89-4101
					12-10-85	--	66.56	2,198.2	Z	-	WRI 89-4101
					03-21-86	--	66.88	2,197.9	Z	-	WRI 89-4101
					07-01-86	--	66.70	2,198.1	Z	-	NDWR
					12-23-86	--	67.06	2,197.7	Z	-	NDWR
					01-12-87	--	66.31	2,198.5	S	-	WRI 89-4101
					03-10-87	--	66.32	2,198.5	Z	-	NDWR
					03-08-88	--	67.19	2,197.6	Z	-	NDWR
					10-19-88	--	67.80	2,197.0	Z	-	NDWR
					10-17-89	--	68.77	2,196.0	Z	-	NDWR
					02-22-90	--	68.32	2,196.5	S	-	EMP
					03-27-90	--	68.61	2,196.2	Z	-	NDWR
					05-01-90	--	71.30	2,193.5	S	-	EMP
					06-20-90	--	72.83	2,192.0	S	-	EMP
					07-26-90	--	72.24	2,192.6	S	-	EMP
					09-19-90	--	71.94	2,192.9	S	-	EMP

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-9	362848116264201	Gilgans North Well	2,264.8	-0.10	04-09-91	--	71.30	2,193.5	S	-	EMP
					10-17-91	--	73.56	2,191.2	Z	-	NDWR
					03-10-92	--	70.18	2,194.6	Z	-	NDWR
					04-21-92	--	72.88	2,191.9	S	-	EMP
					05-19-92	1731	73.93	2,190.9	S	-	EMP
					06-16-92	1106	74.37	2,190.4	S	-	EMP
					07-21-92	1150	74.37	2,190.4	S	-	EMP
					08-18-92	1740	75.05	2,189.8	S	-	EMP
					09-17-92	1008	75.76	2,189.0	S	-	EMP
					10-21-92	0850	73.43	2,191.4	S	-	EMP
					11-17-92	1500	73.20	2,191.6	S	-	EMP
					11-19-92	--	73.89	2,190.9	Z	-	NDWR
					12-16-92	1125	71.25	2,193.6	S	-	EMP
					12-17-92	1015	71.39	2,193.4	S	-	EMP
AD-10	362525116274301	NA-9 Well	2,190.9	1.30	08-01-86	--	7.0	2,183.9	T	-	USGS-NV
					10-28-86	--	7.3	2,183.6	T	-	USGS-NV
					01-13-87	--	7.25	2,183.6	S	-	USGS-NV
					02-22-90	--	8.67	2,182.2	S	-	EMP
					05-01-90	--	8.54	2,182.4	S	-	EMP
					06-20-90	--	8.70	2,182.2	S	-	EMP
					07-26-90	--	8.71	2,182.2	S	-	EMP
					09-15-90	--	8.74	2,182.2	S	-	EMP
					04-09-91	--	8.90	2,182.0	S	-	EMP
					11-21-91	--	9.12	2,181.8	S	-	EMP
					12-11-91	--	8.97	2,181.9	S	-	EMP
					01-14-92	--	9.10	2,181.8	S	-	EMP
					02-18-92	--	9.05	2,181.8	S	-	EMP
					03-18-92	--	8.99	2,181.9	S	-	EMP
					04-13-92	--	9.21	2,181.7	S	-	EMP
					08-18-92	2030	6.84	2,184.1	S	-	EMP
					09-16-92	1620	6.77	2,184.1	S	-	EMP
					10-20-92	1350	7.09	2,183.8	S	-	EMP
					11-17-92	1545	7.50	2,183.4	S	-	EMP
					12-16-92	1200	7.90	2,183.0	S	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-11	361954116181201	GS-3 Well	2,351.3	2.00	10-29-86	--	212.3	2,139.0	T	-	WRI 89-4101
					10-31-86	--	216.1	2,135.2	T	-	WRI 89-4101
					01-14-87	--	209.84	2,141.5	S	-	WRI 89-4101
					02-23-90	--	222.65	2,128.6	S	-	EMP
					05-02-90	--	222.92	2,128.4	S	-	EMP
					06-20-90	--	223.04	2,128.3	S	-	EMP
					07-25-90	--	223.02	2,128.3	S	-	EMP
					09-18-90	--	223.11	2,128.2	S	-	EMP
					04-09-91	--	223.14	2,128.2	S	-	EMP
					02-17-92	--	224.66	2,126.6	S	-	EMP
					03-26-92	--	224.70	2,126.6	S	-	EMP
					04-13-92	--	224.73	2,126.6	S	-	EMP
					05-20-92	--	225.15	2,126.2	S	-	EMP
					06-15-92	1245	225.14	2,126.2	S	-	EMP
					07-20-92	1215	225.10	2,126.2	S	-	EMP
					08-17-92	1242	225.19	2,126.1	S	-	EMP
					09-16-92	1132	226.40	2,124.9	S	-	EMP
					10-20-92	0924	225.63	2,125.7	S	-	EMP
					11-18-92	1040	225.77	2,125.5	S	-	EMP
					12-17-92	1330	225.80	2,125.5	S	-	EMP
AD-12	362014116133901	GS-1 Well	2,430.3	2.00	10-29-86	--	87.7	2,342.6	T	-	WRI 89-4101
					01-14-87	--	87.96	2,342.3	S	-	WRI 89-4101
					02-23-90	--	85.40	2,344.9	S	-	EMP
					05-02-90	--	84.49	2,345.8	S	-	EMP
					06-20-90	--	84.36	2,345.9	S	-	EMP
					07-25-90	--	86.71	2,343.6	S	-	EMP
					09-18-90	--	84.62	2,345.7	S	-	EMP
					04-08-91	--	86.54	2,343.8	S	-	EMP
					02-17-92	--	85.47	2,344.8	S	-	EMP
					03-26-92	--	85.41	2,344.9	S	-	EMP
					04-13-92	--	85.24	2,345.1	S	-	EMP
					05-19-92	1826	87.30	2,343.0	S	-	EMP
					06-15-92	1150	87.39	2,342.9	S	-	EMP
					07-20-92	1115	81.92	2,348.4	S	-	EMP
					08-17-92	1130	80.90	2,349.4	S	-	EMP

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-12	362014116133901	GS-1 Well	2,430.3	2.00	09-16-92	1011	80.85	2,349.4	S	-	EMP
					10-20-92	0830	80.79	2,349.5	S	-	EMP
					11-18-92	1150	80.73	2,349.6	S	-	EMP
					12-17-92	1220	80.68	2,349.6	S	-	EMP
AD-13	361724116324201	S-1 Well	2,703.2	2.00	08-04-86	--	381.7	2,321.5	T	-	WRI 89-4101
					10-31-86	--	384.6	2,318.6	T	-	WRI 89-4101
					01-13-87	--	374.19	2,329.0	S	-	WRI 89-4101
					02-23-90	--	401.62	2,301.6	S	-	EMP
					05-03-90	--	400.10	2,303.1	S	-	EMP
					06-20-90	--	401.18	2,302.0	S	-	EMP
					07-25-90	--	401.74	2,301.5	S	-	EMP
					09-15-90	--	386.2	2,317.0	T	-	EMP
					09-21-90	--	386.1	2,317.1	T	-	EMP
					04-08-91	--	382.32	2,320.9	S	-	EMP
					11-21-91	--	383.64	2,319.6	S	-	EMP
					12-11-91	--	382.66	2,320.5	S	-	EMP
					01-13-92	--	384.69	2,318.5	S	-	EMP
					02-17-92	--	382.63	2,320.6	V	-	EMP
					03-18-92	--	382.41	2,320.8	V	-	EMP
					04-13-92	--	381.75	2,321.4	S	-	EMP
					05-20-92	1423	383.62	2,319.6	S	-	EMP
					06-15-92	1443	383.45	2,319.8	S	-	EMP
					07-20-92	1355	385.28	2,317.9	S	-	EMP
					08-20-92	1245	385.31	2,317.9	S	-	EMP
					09-16-92	1530	384.93	2,318.3	S	-	EMP
					10-20-92	1210	382.20	2,321.0	S	-	EMP
					11-17-92	1440	382.07	2,321.1	S	-	EMP
					12-11-92	1420	382.17	2,321.0	S	-	EMP
AD-14	361817116244701	Death Valley Jct Well	2,041.8	0.70	01-22-79	--	3.20	2,038.6	S	-	USGS-CA
					10-02-79	--	5.50	2,036.3	S	-	USGS-CA
					06-17-80	--	4.07	2,037.7	S	-	USGS-CA
					01-14-81	--	4.29	2,037.5	S	-	USGS-CA
					10-07-81	--	5.35	2,036.4	S	-	USGS-CA

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AD-14	361817116244701	Death Valley Jct Well	2,041.8	0.70	04-17-82	--	4.14	2,037.7	S	-	USGS-CA
					10-21-82	--	4.61	2,037.2	S	-	USGS-CA
					07-21-83	--	6.92	2,034.9	S	-	USGS-CA
					01-20-84	--	4.95	2,036.8	S	-	USGS-CA
					02-23-90	--	4.65	2,037.2	S	-	EMP
					05-03-90	--	4.47	2,037.3	S	-	EMP
					06-20-90	--	4.96	2,036.8	S	-	EMP
					07-25-90	--	4.74	2,037.1	S	-	EMP
					09-15-90	--	4.72	2,037.1	S	-	EMP
					04-09-91	--	4.58	2,037.2	S	-	EMP
					11-21-91	--	4.08	2,037.7	S	-	EMP
					12-11-91	--	4.68	2,037.1	S	-	EMP
					01-13-92	--	4.86	2,036.9	S	-	EMP
					02-18-92	--	3.52	2,038.3	S	-	EMP
					03-18-92	--	3.38	2,038.4	S	-	EMP
					04-13-92	--	3.59	2,038.2	S	-	EMP
					04-21-92	--	3.60	2,038.2	S	-	EMP
					05-20-92	0822	3.39	2,038.4	S	-	EMP
					06-15-92	1406	3.88	2,037.9	S	-	EMP
					07-20-92	1310	3.97	2,037.8	S	-	EMP
					08-20-92	0710	4.18	2,037.6	S	-	EMP
					09-16-92	1215	4.02	2,037.8	S	-	EMP
					10-20-92	1008	4.20	2,037.6	S	-	EMP
					11-17-92	1515	3.90	2,037.9	S	-	EMP
					12-17-92	0725	3.79	2,038.0	S	-	EMP
AM-1	362858116195301	Rogers Spring Well	2,265.9	0.10	04-22-70	--	.80	2,265.1	Z	-	WRI 89-4101
					05-07-70	--	.80	2,265.1	Z	-	WRI 89-4101
					05-14-70	--	.80	2,265.1	Z	-	NDWR
					05-21-70	--	.80	2,265.1	Z	-	NDWR
					06-10-70	--	.80	2,265.1	Z	-	WRI 89-4101
					07-02-70	--	.80	2,265.1	Z	-	WRI 89-4101
					07-09-70	--	.80	2,265.1	Z	-	NDWR
					08-27-70	--	5.0	2,260.9	Z	S	NDWR
					09-03-70	--	5.3	2,260.6	Z	S	WRI 89-4101
					09-10-70	--	5.3	2,260.6	Z	S	NDWR

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-1	362858116195301	Rogers Spring Well	2,265.9	0.10	09-24-70	--	3.6	2,262.3	Z	-	NDWR
					03-25-71	--	3.00	2,262.9	Z	-	WRI 89-4101
					02-23-90	--	3.08	2,262.8	S	-	EMP
					05-02-90	--	3.37	2,262.5	S	-	EMP
					06-20-90	--	3.75	2,262.2	S	-	EMP
					07-13-90	--	4.12	2,261.8	S	-	USFWS
					08-20-90	--	3.75	2,262.2	S	-	USFWS
					09-12-90	--	3.90	2,262.0	S	-	USFWS
					09-16-90	--	3.99	2,261.9	S	-	EMP
					10-16-90	--	3.64	2,262.3	S	-	USFWS
					11-13-90	--	3.42	2,262.5	S	-	USFWS
					12-18-90	--	3.22	2,262.7	S	-	USFWS
					01-14-91	--	3.16	2,262.7	S	-	USFWS
					02-12-91	--	3.10	2,262.8	S	-	USFWS
					03-15-91	--	3.04	2,262.9	S	-	USFWS
					04-08-91	--	3.06	2,262.8	S	-	EMP
					04-24-91	--	3.06	2,262.8	S	-	USFWS
					05-17-91	--	3.19	2,262.7	S	-	USFWS
					06-21-91	--	3.63	2,262.3	S	-	USFWS
					07-19-91	--	3.96	2,261.9	S	-	USFWS
					08-14-91	--	4.19	2,261.7	S	-	USFWS
					09-24-91	--	4.17	2,261.7	S	-	EMP
					11-20-91	--	3.63	2,262.3	S	-	EMP
					11-25-91	--	3.49	2,262.4	S	-	USFWS
					12-12-91	--	3.39	2,262.5	S	-	EMP
					01-03-92	--	3.17	2,262.7	S	-	USFWS
					01-14-92	--	3.17	2,262.7	S	-	EMP
					01-31-92	--	3.27	2,262.6	S	-	USFWS
					02-18-92	--	2.92	2,263.0	S	-	EMP
					02-27-92	--	2.97	2,262.9	S	-	USFWS
					03-18-92	--	2.97	2,262.9	S	-	EMP
					03-30-92	--	2.93	2,263.0	S	-	USFWS
					04-14-92	--	3.02	2,262.9	S	-	EMP
					04-30-92	--	3.11	2,262.8	S	-	USFWS
					05-19-92	--	3.39	2,262.5	S	-	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-1	362858116195301	Rogers Spring Well	2,265.9	0.10	05-27-92	--	3.42	2,262.5	S	-	USFWS
					06-16-92	--	3.69	2,262.2	S	-	EMP
					06-29-92	--	3.84	2,262.1	S	-	USFWS
					07-21-92	--	3.94	2,262.0	S	-	EMP
					07-31-92	--	3.98	2,261.9	S	-	USFWS
					08-17-92	1515	4.00	2,261.9	S	-	EMP
					08-27-92	--	4.07	2,261.8	S	-	USFWS
					09-17-92	0836	3.93	2,262.0	S	-	EMP
					10-01-92	--	3.83	2,262.1	S	-	USFWS
					10-21-92	0710	3.58	2,262.3	S	-	EMP
					11-04-92	--	3.41	2,262.5	S	-	USFWS
					11-18-92	--	3.23	2,262.7	S	-	EMP
					11-30-92	--	3.16	2,262.7	S	-	USFWS
					12-16-92	1315	3.03	2,262.9	S	-	EMP
					12-31-92	--	2.96	2,262.9	S	-	USFWS
AM-2	362755116190401	Five Springs Well	2,367.4	1.17	06-20-90	--	-.29	2,367.7	S	F	EMP
					04-08-91	--	-.35	2,367.8	S	F	EMP
					11-20-91	--	-.30	2,367.7	S	F	EMP
					12-12-91	--	-.27	2,367.7	S	F	EMP
					01-14-92	--	-.26	2,367.7	S	F	EMP
					02-18-92	--	-.29	2,367.7	S	F	EMP
					03-18-92	--	-.30	2,367.7	S	F	EMP
					04-14-92	--	-.39	2,367.8	S	F	EMP
					04-28-92	--	-.47	2,367.9	S	F	EMP
					05-19-92	--	-.48	2,367.9	S	F	EMP
					06-16-92	--	-.45	2,367.8	S	F	EMP
					07-21-92	--	-.83	2,368.2	S	F	EMP
					08-19-92	--	-.84	2,368.2	S	F	EMP
					09-17-92	--	-.81	2,368.2	S	F	EMP
					10-21-92	0730	-.83	2,368.2	S	F	EMP
					11-18-92	1600	-.80	2,368.2	S	F	EMP
					12-16-92	1330	-.80	2,368.2	S	F	EMP

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-3	362555116205301	Garners Well	2,157.0	1.15	03-17-87	--	7.55	2,149.4	S	-	WRI 89-4101
					05-02-90	--	8.61	2,148.4	S	-	EMP
					06-20-90	--	10.60	2,146.4	S	-	EMP
					07-25-90	--	9.33	2,147.7	S	-	EMP
					08-27-90	--	9.25	2,147.8	S	-	EMP
					09-21-90	--	10.59	2,146.4	S	-	EMP
					04-08-91	--	10.90	2,146.1	S	-	EMP
					08-31-91	--	16.53	2,140.5	S	-	EMP
					09-24-91	--	18.00	2,139.0	S	-	EMP
					11-20-91	--	18.14	2,138.9	S	-	EMP
					12-12-91	--	18.00	2,139.0	S	-	EMP
					01-14-92	--	18.79	2,138.2	S	-	EMP
					02-18-92	--	17.54	2,139.5	S	-	EMP
					03-18-92	--	17.21	2,139.8	S	-	EMP
					04-14-92	--	16.95	2,140.0	S	-	EMP
					05-19-92	1700	17.13	2,139.9	S	-	EMP
					06-16-92	1035	17.51	2,139.5	S	-	EMP
					07-21-92	1112	18.05	2,139.0	S	-	EMP
					08-17-92	1420	18.49	2,138.5	S	-	EMP
					09-17-92	0742	18.93	2,138.1	S	-	EMP
					10-20-92	1430	19.31	2,137.7	S	-	EMP
					11-18-92	1635	19.43	2,137.6	S	-	EMP
					12-16-92	1240	19.33	2,137.7	S	-	EMP
AM-4	362532116172700	Devils Hole	2,359.9	--	05-22-62	1400	1.12	2,358.8	N	-	USGS-NV
					08-02-62	2030	.95	2,359.0	N	-	USGS-NV
					12-17-62	1600	1.10	2,358.8	N	-	USGS-NV
					02-25-63	1800	1.08	2,358.8	N	-	USGS-NV
					03-21-63	1115	1.08	2,358.8	N	-	USGS-NV
					04-17-63	1205	1.13	2,358.8	N	-	USGS-NV
					05-22-63	0825	1.29	2,358.6	N	-	USGS-NV
					09-17-63	--	1.10	2,358.8	N	-	USGS-NV
					11-13-63	1005	1.17	2,358.7	N	-	USGS-NV
					02-03-64	1105	1.17	2,358.7	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	02-21-64	1230	1.17	2,358.7	N	-	USGS-NV
					03-18-64	1140	1.11	2,358.8	N	-	USGS-NV
					09-30-64	1130	1.20	2,358.7	N	-	USGS-NV
					11-10-64	0910	1.14	2,358.8	N	-	USGS-NV
					12-15-64	0900	1.22	2,358.7	N	-	USGS-NV
					01-23-65	1245	1.19	2,358.7	N	-	USGS-NV
					02-16-65	0750	1.24	2,358.7	N	-	USGS-NV
					03-26-65	0730	1.17	2,358.7	N	-	USGS-NV
					05-10-65	1735	1.16	2,358.7	N	-	USGS-NV
					06-09-65	0740	1.28	2,358.6	N	-	USGS-NV
					07-19-65	1725	1.13	2,358.8	N	-	USGS-NV
					08-16-65	1800	1.09	2,358.8	N	-	USGS-NV
					10-14-65	1115	1.14	2,358.8	N	-	USGS-NV
					12-06-65	1420	1.13	2,358.8	N	-	USGS-NV
					12-13-65	1125	1.04	2,358.9	N	-	USGS-NV
					01-18-66	0845	1.12	2,358.8	N	-	USGS-NV
					02-14-66	1035	1.17	2,358.7	N	-	USGS-NV
					05-18-66	1640	1.08	2,358.8	N	-	USGS-NV
					06-19-66	1125	1.36	2,358.5	N	-	USGS-NV
					08-30-66	1745	1.14	2,358.8	N	-	USGS-NV
					10-24-66	1550	1.26	2,358.6	N	-	USGS-NV
					01-15-67	1530	1.25	2,358.6	N	-	USGS-NV
					01-25-67	1635	1.22	2,358.7	N	-	USGS-NV
					03-28-67	1030	1.24	2,358.7	N	-	USGS-NV
					05-22-67	1315	1.22	2,358.7	N	-	USGS-NV
					07-23-67	1235	1.34	2,358.6	N	-	USGS-NV
					11-14-67	1200	1.22	2,358.7	N	-	USGS-NV
					12-12-67	1125	1.22	2,358.7	N	-	USGS-NV
					01-09-68	1040	1.23	2,358.7	N	-	USGS-NV
					02-13-68	1310	1.14	2,358.8	N	-	USGS-NV
					03-12-68	1100	1.28	2,358.6	N	-	USGS-NV
					04-09-68	1100	1.32	2,358.6	N	-	USGS-NV
					05-06-68	0955	1.22	2,358.7	N	-	USGS-NV
					06-11-68	0935	1.31	2,358.6	N	-	USGS-NV
					07-08-68	0745	1.30	2,358.6	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	09-18-68	1425	1.12	2,358.8	N	-	USGS-NV
					10-22-68	0955	1.26	2,358.6	N	-	USGS-NV
					11-22-68	1000	1.25	2,358.6	N	-	USGS-NV
					01-02-69	0900	1.49	2,358.4	N	-	USGS-NV
					02-15-69	1420	1.20	2,358.7	N	-	USGS-NV
					04-04-69	1600	1.18	2,358.7	N	-	USGS-NV
					05-08-69	0820	1.34	2,358.6	N	-	USGS-NV
					06-12-69	0945	1.44	2,358.5	N	-	USGS-NV
					07-10-69	0930	1.54	2,358.4	N	-	USGS-NV
					08-18-69	1205	1.42	2,358.5	N	-	USGS-NV
					09-16-69	0930	1.72	2,358.2	N	-	USGS-NV
					10-06-69	0955	2.04	2,357.9	N	-	USGS-NV
					10-10-69	1135	1.95	2,358.0	N	-	USGS-NV
					11-13-69	0620	2.12	2,357.8	N	-	USGS-NV
					12-03-69	0955	2.01	2,357.9	N	-	USGS-NV
					12-14-69	0500	1.97	2,357.9	N	-	USGS-NV
					02-08-70	1015	1.92	2,358.0	N	-	USGS-NV
					02-17-70	0940	1.85	2,358.0	N	-	USGS-NV
					03-11-70	1210	1.94	2,358.0	N	-	USGS-NV
					03-26-70	1235	1.76	2,358.1	N	-	USGS-NV
					04-23-70	0630	2.08	2,357.8	N	-	USGS-NV
					05-09-70	1200	2.18	2,357.7	N	-	USGS-NV
					05-12-70	0920	2.24	2,357.7	N	-	USGS-NV
					05-22-70	1200	2.39	2,357.5	N	-	USGS-NV
					06-02-70	1415	2.29	2,357.6	N	-	USGS-NV
					06-29-70	1435	2.34	2,357.6	N	-	USGS-NV
					07-30-70	1725	2.42	2,357.5	N	-	USGS-NV
					08-21-70	1340	2.70	2,357.2	N	-	USGS-NV
					08-28-70	0910	2.82	2,357.1	N	-	USGS-NV
					09-10-70	1500	2.67	2,357.2	N	-	USGS-NV
					09-18-70	0845	2.75	2,357.2	N	-	USGS-NV
					09-22-70	0900	2.94	2,357.0	N	-	USGS-NV
					10-13-70	1510	2.68	2,357.2	N	-	USGS-NV
					11-06-70	1640	2.74	2,357.2	N	-	USGS-NV
					12-01-70	0900	2.83	2,357.1	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	12-03-70	0920	2.92	2,357.0	N	-	USGS-NV
					12-04-70	1230	2.86	2,357.0	N	-	USGS-NV
					12-08-70	1035	2.82	2,357.1	N	-	USGS-NV
					12-10-70	0905	2.96	2,356.9	N	-	USGS-NV
					12-14-70	0930	2.80	2,357.1	N	-	USGS-NV
					12-21-70	1030	2.61	2,357.3	N	-	USGS-NV
					12-30-70	1235	2.64	2,357.3	N	-	USGS-NV
					01-08-71	1230	2.46	2,357.4	N	-	USGS-NV
					01-11-71	1140	2.42	2,357.5	N	-	USGS-NV
					01-18-71	1000	2.41	2,357.5	N	-	USGS-NV
					01-25-71	1400	2.38	2,357.5	N	-	USGS-NV
					01-29-71	1615	2.42	2,357.5	N	-	USGS-NV
					02-05-71	1340	2.35	2,357.6	N	-	USGS-NV
					02-08-71	1020	2.61	2,357.3	N	-	USGS-NV
					02-16-71	1530	2.40	2,357.5	N	-	USGS-NV
					02-17-71	0820	2.36	2,357.5	N	-	USGS-NV
					03-03-71	1505	2.49	2,357.4	N	-	USGS-NV
					03-15-71	1100	2.67	2,357.2	N	-	USGS-NV
					03-24-71	0905	2.60	2,357.3	N	-	USGS-NV
					03-30-71	0915	2.45	2,357.4	N	-	USGS-NV
					04-06-71	1450	2.42	2,357.5	N	-	USGS-NV
					04-13-71	1135	2.69	2,357.2	N	-	USGS-NV
					04-20-71	0640	2.64	2,357.3	N	-	USGS-NV
					04-27-71	1145	2.69	2,357.2	N	-	USGS-NV
					05-04-71	1230	2.51	2,357.4	N	-	USGS-NV
					05-11-71	1320	2.61	2,357.3	N	-	USGS-NV
					05-18-71	1305	2.49	2,357.4	N	-	USGS-NV
					05-25-71	1115	2.63	2,357.3	N	-	USGS-NV
					06-03-71	1045	2.67	2,357.2	N	-	USGS-NV
					06-12-71	0850	2.66	2,357.2	N	-	USGS-NV
					06-19-71	0955	2.93	2,357.0	N	-	USGS-NV
					06-21-71	1220	2.93	2,357.0	N	-	USGS-NV
					06-28-71	0715	2.88	2,357.0	N	-	USGS-NV
					07-01-71	0555	2.96	2,356.9	N	-	USGS-NV
					07-06-71	0550	2.92	2,357.0	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	07-08-71	1030	3.13	2,356.8	N	-	USGS-NV
					07-13-71	0730	3.04	2,356.9	N	-	USGS-NV
					07-16-71	0830	3.16	2,356.7	N	-	USGS-NV
					07-20-71	0800	3.12	2,356.8	N	-	USGS-NV
					07-27-71	0825	3.07	2,356.8	N	-	USGS-NV
					08-09-71	0950	3.09	2,356.8	N	-	USGS-NV
					08-18-71	1045	3.30	2,356.6	N	-	USGS-NV
					08-23-71	1105	3.24	2,356.7	N	-	USGS-NV
					09-07-71	1610	3.20	2,356.7	N	-	USGS-NV
					10-07-71	0920	3.00	2,356.9	N	-	USGS-NV
					11-01-71	1020	3.30	2,356.6	N	-	USGS-NV
					12-01-71	1100	3.20	2,356.7	N	-	USGS-NV
					12-20-71	1030	3.13	2,356.8	N	-	USGS-NV
					01-24-72	1210	3.02	2,356.9	N	-	USGS-NV
					02-03-72	0935	2.98	2,356.9	N	-	USGS-NV
					02-11-72	1130	2.87	2,357.0	N	-	USGS-NV
					02-18-72	1255	2.82	2,357.1	N	-	USGS-NV
					03-10-72	0930	2.83	2,357.1	N	-	USGS-NV
					04-10-72	1100	2.98	2,356.9	N	-	USGS-NV
					05-11-72	1600	3.10	2,356.8	N	-	USGS-NV
					05-15-72	1515	3.30	2,356.6	N	-	USGS-NV
					05-25-72	1130	3.41	2,356.5	N	-	USGS-NV
					06-08-72	1215	3.43	2,356.5	N	-	USGS-NV
					06-19-72	1630	3.42	2,356.5	N	-	USGS-NV
					06-30-72	0825	3.44	2,356.5	N	-	USGS-NV
					07-13-72	1600	3.59	2,356.3	N	-	USGS-NV
					08-03-72	1250	3.59	2,356.3	N	-	USGS-NV
					08-11-72	1140	3.74	2,356.2	N	-	USGS-NV
					08-17-72	1435	3.63	2,356.3	N	-	USGS-NV
					08-28-72	1050	3.68	2,356.2	N	-	USGS-NV
					09-09-72	0805	3.65	2,356.2	N	-	USGS-NV
					09-18-72	0720	3.80	2,356.1	N	-	USGS-NV
					09-27-72	0820	3.68	2,356.2	N	-	USGS-NV
					10-10-72	1225	3.72	2,356.2	N	-	USGS-NV
					10-19-72	1130	3.73	2,356.2	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	11-02-72	1220	3.66	2,356.2	N	-	USGS-NV
					11-13-72	0800	3.69	2,356.2	N	-	USGS-NV
					12-01-72	1030	3.52	2,356.4	N	-	USGS-NV
					02-08-72	1250	3.36	2,356.5	N	-	USGS-NV
					12-21-72	1125	3.20	2,356.7	N	-	USGS-NV
					01-05-73	0930	3.10	2,356.8	N	-	USGS-NV
					01-18-73	1235	2.88	2,357.0	N	-	USGS-NV
					02-15-73	1145	2.90	2,357.0	N	-	USGS-NV
					02-20-73	0745	2.84	2,357.1	N	-	USGS-NV
					02-23-73	0945	2.87	2,357.0	N	-	USGS-NV
					03-07-73	1200	2.90	2,357.0	N	-	USGS-NV
					03-20-73	0815	2.63	2,357.3	N	-	USGS-NV
					03-28-73	0900	2.83	2,357.1	N	-	USGS-NV
					04-06-73	1220	3.06	2,356.8	N	-	USGS-NV
					04-11-73	1500	2.99	2,356.9	N	-	USGS-NV
					04-21-73	0920	3.28	2,356.6	N	-	USGS-NV
					05-04-73	0830	3.32	2,356.6	N	-	USGS-NV
					05-08-73	0825	3.45	2,356.4	N	-	USGS-NV
					05-16-73	1115	3.70	2,356.2	N	-	USGS-NV
					05-19-73	1330	3.61	2,356.3	N	-	USGS-NV
					05-24-73	0810	3.50	2,356.4	N	-	USGS-NV
					05-29-73	0830	3.58	2,356.3	N	-	USGS-NV
					05-31-73	0655	3.40	2,356.5	N	-	USGS-NV
					06-07-73	0800	3.55	2,356.4	N	-	USGS-NV
					06-12-73	0800	3.58	2,356.3	N	-	USGS-NV
					06-19-73	1100	3.62	2,356.3	N	-	USGS-NV
					06-22-73	1150	3.48	2,356.4	N	-	USGS-NV
					06-24-73	0845	3.55	2,356.4	N	-	USGS-NV
					07-02-73	1725	3.36	2,356.5	N	-	USGS-NV
					07-13-73	1200	3.48	2,356.4	N	-	USGS-NV
					07-16-73	1400	3.52	2,356.4	N	-	USGS-NV
					07-19-73	1515	3.48	2,356.4	N	-	USGS-NV
					07-24-73	1100	3.47	2,356.4	N	-	USGS-NV
					07-26-73	1300	3.38	2,356.5	N	-	USGS-NV
					07-30-73	1400	3.45	2,356.4	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	08-01-73	1415	3.38	2,356.5	N	-	USGS-NV
					08-06-73	1145	3.29	2,356.6	N	-	USGS-NV
					08-08-73	1400	3.28	2,356.6	N	-	USGS-NV
					08-21-73	1230	3.34	2,356.6	N	-	USGS-NV
					08-27-73	1320	3.47	2,356.4	N	-	USGS-NV
					09-05-73	1400	3.29	2,356.6	N	-	USGS-NV
					09-10-73	1410	3.35	2,356.5	N	-	USGS-NV
					09-12-73	1115	3.40	2,356.6	N	-	USGS-NV
					09-17-73	1355	3.36	2,356.5	N	-	USGS-NV
					09-21-73	1440	3.32	2,356.6	N	-	USGS-NV
					09-24-73	1340	3.34	2,356.6	N	-	USGS-NV
					10-01-73	1220	3.23	2,356.7	N	-	USGS-NV
					10-18-73	1115	3.32	2,356.6	N	-	USGS-NV
					10-22-73	0910	3.34	2,356.6	N	-	USGS-NV
					10-24-73	1230	3.32	2,356.6	N	-	USGS-NV
					11-09-73	0925	3.38	2,356.5	N	-	USGS-NV
					11-17-73	1420	3.24	2,356.7	N	-	USGS-NV
					11-19-73	1150	3.31	2,356.6	N	-	USGS-NV
					11-28-73	1015	3.33	2,356.6	N	-	USGS-NV
					12-05-73	1000	3.22	2,356.7	N	-	USGS-NV
					12-19-73	1600	3.14	2,356.8	N	-	USGS-NV
					01-03-74	1120	3.06	2,356.8	N	-	USGS-NV
					02-04-74	1020	2.95	2,357.0	N	-	USGS-NV
					02-08-74	1350	3.10	2,356.8	N	-	USGS-NV
					03-04-74	1020	3.12	2,356.8	N	-	USGS-NV
					04-04-74	1015	3.37	2,356.5	N	-	USGS-NV
					05-02-74	1110	3.22	2,356.7	N	-	USGS-NV
					06-03-74	1000	3.38	2,356.5	N	-	USGS-NV
					07-04-74	1010	3.40	2,356.5	N	-	USGS-NV
					08-05-74	1015	3.24	2,356.7	N	-	USGS-NV
					09-05-74	1155	3.31	2,356.6	N	-	USGS-NV
					10-01-74	1210	3.40	2,356.5	N	-	USGS-NV
					01-05-74	1200	3.16	2,356.7	N	-	USGS-NV
					12-02-74	1325	3.14	2,356.8	N	-	USGS-NV
					01-03-75	1135	3.05	2,356.8	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	02-03-75	1150	2.84	2,357.1	N	-	USGS-NV
					03-03-75	1120	2.82	2,357.1	N	-	USGS-NV
					04-02-75	1300	2.94	2,357.0	N	-	USGS-NV
					04-30-75	1200	3.09	2,356.8	N	-	USGS-NV
					06-02-75	1400	3.15	2,356.8	N	-	USGS-NV
					07-01-75	1300	3.20	2,356.7	N	-	USGS-NV
					07-16-75	1010	3.23	2,356.7	N	-	USGS-NV
					08-01-75	1015	3.40	2,356.5	N	-	USGS-NV
					08-22-75	1100	3.36	2,356.5	N	-	USGS-NV
					09-04-75	1100	3.42	2,356.5	N	-	USGS-NV
					10-02-75	1110	3.40	2,356.5	N	-	USGS-NV
					11-05-75	1700	3.01	2,356.9	N	-	USGS-NV
					11-19-75	1100	3.25	2,356.6	N	-	USGS-NV
					12-02-75	1045	3.12	2,356.8	N	-	USGS-NV
					12-12-75	1215	2.88	2,357.0	N	-	USGS-NV
					12-30-75	1415	2.68	2,357.2	N	-	USGS-NV
					01-06-76	1130	2.98	2,356.9	N	-	USGS-NV
					01-29-76	1645	2.72	2,357.2	N	-	USGS-NV
					02-03-76	1600	2.64	2,357.3	N	-	USGS-NV
					03-02-76	0945	2.73	2,357.2	N	-	USGS-NV
					03-18-76	1130	2.76	2,357.1	N	-	USGS-NV
					03-22-76	1030	2.76	2,357.1	N	-	USGS-NV
					04-02-76	0815	2.87	2,357.0	N	-	USGS-NV
					05-04-76	1500	3.05	2,356.8	N	-	USGS-NV
					06-02-76	1000	3.07	2,356.8	N	-	USGS-NV
					06-09-76	1200	3.21	2,356.7	N	-	USGS-NV
					07-01-76	1215	3.16	2,356.7	N	-	USGS-NV
					07-15-76	1615	2.94	2,357.0	N	-	USGS-NV
					08-04-76	1300	2.82	2,357.1	N	-	USGS-NV
					09-03-76	1210	2.79	2,357.1	N	-	USGS-NV
					10-08-76	1130	2.90	2,357.0	N	-	USGS-NV
					10-14-76	1030	2.84	2,357.1	N	-	USGS-NV
					11-02-76	1100	2.90	2,357.0	N	-	USGS-NV
					12-01-76	1200	2.81	2,357.1	N	-	USGS-NV
					01-04-77	1530	2.58	2,357.3	N	-	USGS-NV

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	02-02-77	1130	2.74	2,357.2	N	-	USGS-NV
					03-01-77	1445	2.52	2,357.4	N	-	USGS-NV
					04-04-77	1415	2.90	2,357.0	N	-	USGS-NV
					05-03-77	1315	2.96	2,356.9	N	-	USGS-NV
					05-11-77	1430	2.82	2,357.1	N	-	USGS-NV
					06-01-77	1200	3.01	2,356.9	N	-	USGS-NV
					07-06-77	1130	2.85	2,357.0	N	-	USGS-NV
					07-26-77	1000	2.94	2,357.0	N	-	USGS-NV
					07-28-77	0845	2.92	2,357.0	N	-	USGS-NV
					08-01-77	1200	2.91	2,357.0	N	-	USGS-NV
					09-01-77	1445	2.79	2,357.1	N	-	USGS-NV
					10-03-77	1300	2.76	2,357.1	N	-	USGS-NV
					11-02-77	1245	2.63	2,357.3	N	-	USGS-NV
					12-05-77	1200	2.56	2,357.3	N	-	USGS-NV
					01-03-78	1430	2.52	2,357.4	N	-	USGS-NV
					02-01-78	1430	2.50	2,357.4	N	-	USGS-NV
					03-14-78	1130	2.54	2,357.4	N	-	USGS-NV
					04-05-78	1215	2.51	2,357.4	N	-	USGS-NV
					05-10-78	1400	2.49	2,357.4	N	-	USGS-NV
					06-06-78	1400	2.50	2,357.4	N	-	USGS-NV
					07-06-78	1345	2.54	2,357.4	N	-	USGS-NV
					08-09-78	1145	2.47	2,357.4	N	-	USGS-NV
					09-11-78	1230	2.46	2,357.4	N	-	USGS-NV
					10-03-78	1115	2.48	2,357.4	N	-	USGS-NV
					11-02-78	1200	2.46	2,357.4	N	-	USGS-NV
					11-30-78	1530	2.31	2,357.6	N	-	USGS-NV
					01-10-79	1400	2.34	2,357.6	N	-	USGS-NV
					02-08-79	1300	2.39	2,357.5	N	-	USGS-NV
					03-06-79	1200	2.39	2,357.5	N	-	USGS-NV
					03-27-79	1000	2.36	2,357.5	N	-	USGS-NV
					04-13-79	1400	2.34	2,357.6	N	-	USGS-NV
					05-03-79	1215	2.34	2,357.6	N	-	USGS-NV
					06-15-79	1245	2.34	2,357.6	N	-	USGS-NV
					07-02-79	1230	2.41	2,357.5	N	-	USGS-NV
					08-03-79	1030	2.60	2,357.3	N	-	USGS-NV

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	09-05-79	0945	2.64	2,357.3	N	-	USGS-NV
					10-03-79	1045	2.61	2,357.3	N	-	USGS-NV
					11-06-79	1430	2.33	2,357.6	N	-	USGS-NV
					12-06-79	1345	2.28	2,357.6	N	-	USGS-NV
					01-07-80	1430	2.28	2,357.6	N	-	USGS-NV
					01-17-80	1200	2.33	2,357.6	N	-	USGS-NV
					02-08-80	1045	2.32	2,357.6	N	-	USGS-NV
					03-13-80	1100	2.33	2,357.6	N	-	USGS-NV
					04-08-80	1330	2.31	2,357.6	N	-	USGS-NV
					05-08-80	1200	2.22	2,357.7	N	-	USGS-NV
					06-05-80	0815	2.27	2,357.6	N	-	USGS-NV
					07-08-80	0915	2.40	2,357.5	N	-	USGS-NV
					08-07-80	0745	2.32	2,357.6	N	-	USGS-NV
					09-17-80	1230	2.21	2,357.7	N	-	USGS-NV
					10-07-80	0900	2.33	2,357.6	N	-	USGS-NV
					11-04-80	1000	2.41	2,357.5	N	-	USGS-NV
					12-02-80	1300	2.16	2,357.7	N	-	USGS-NV
					01-06-81	1330	2.21	2,357.7	N	-	USGS-NV
					02-02-81	1215	2.25	2,357.6	N	-	USGS-NV
					03-12-81	1300	2.20	2,357.7	N	-	USGS-NV
					04-01-81	1130	2.17	2,357.7	N	-	USGS-NV
					05-05-81	1200	2.42	2,357.5	N	-	USGS-NV
					06-06-81	0945	2.31	2,357.6	N	-	USGS-NV
					07-01-81	0830	2.38	2,357.5	N	-	USGS-NV
					08-19-81	0815	2.31	2,357.6	N	-	USGS-NV
					09-04-81	0815	2.32	2,357.6	N	-	USGS-NV
					10-07-81	1200	2.26	2,357.6	N	-	USGS-NV
					11-05-81	1030	2.32	2,357.6	N	-	USGS-NV
					12-03-81	1215	2.31	2,357.6	N	-	USGS-NV
					01-11-82	1215	2.23	2,357.7	N	-	USGS-NV
					02-08-82	1245	2.25	2,357.6	N	-	USGS-NV
					03-11-82	1145	2.23	2,357.7	N	-	USGS-NV
					04-07-82	1200	2.34	2,357.6	N	-	USGS-NV
					05-10-82	1200	2.31	2,357.6	N	-	USGS-NV
					06-02-82	1215	2.21	2,357.7	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	07-01-82	1230	2.29	2,357.6	N	-	USGS-NV
					08-03-82	0915	2.31	2,357.6	N	-	USGS-NV
					09-03-82	0915	2.22	2,357.7	N	-	USGS-NV
					10-04-82	1200	2.18	2,357.7	N	-	USGS-NV
					11-06-82	1415	2.10	2,357.8	N	-	USGS-NV
					12-07-82	1300	2.12	2,357.8	N	-	USGS-NV
					01-12-83	1315	2.18	2,357.7	N	-	USGS-NV
					02-10-83	1300	2.18	2,357.7	N	-	USGS-NV
					03-18-83	1215	2.15	2,357.8	N	-	USGS-NV
					04-15-83	1145	2.34	2,357.6	N	-	USGS-NV
					05-13-83	1300	2.27	2,357.6	N	-	USGS-NV
					06-09-83	1215	2.27	2,357.6	N	-	USGS-NV
					07-14-83	1000	2.05	2,357.8	N	-	USGS-NV
					08-08-83	1145	2.32	2,357.6	N	-	USGS-NV
					09-13-83	1100	2.12	2,357.8	N	-	USGS-NV
					10-06-83	1145	2.21	2,357.7	N	-	USGS-NV
					11-10-83	1145	2.07	2,357.8	N	-	USGS-NV
					12-07-83	1145	2.18	2,357.7	N	-	USGS-NV
					01-24-84	1130	2.14	2,357.8	N	-	USGS-NV
					02-14-84	1000	2.19	2,357.7	N	-	USGS-NV
					03-08-84	1315	2.17	2,357.7	N	-	USGS-NV
					05-08-84	1200	2.12	2,357.8	N	-	USGS-NV
					06-15-84	1145	2.22	2,357.7	N	-	USGS-NV
					07-17-84	0945	2.05	2,357.8	N	-	USGS-NV
					09-13-84	1215	2.11	2,357.8	N	-	USGS-NV
					10-12-84	1215	2.21	2,357.7	N	-	USGS-NV
					12-06-84	1145	2.23	2,357.7	N	-	USGS-NV
					02-16-85	1230	1.98	2,357.9	N	-	USGS-NV
					03-07-85	1130	2.18	2,357.7	N	-	USGS-NV
					05-06-85	1245	2.14	2,357.8	N	-	USGS-NV
					07-31-85	1200	2.16	2,357.7	N	-	USGS-NV
					10-08-85	1130	2.02	2,357.9	N	-	USGS-NV
					10-22-85	1215	2.11	2,357.8	N	-	USGS-NV
					12-05-85	--	1.99	2,357.9	N	-	USGS-NV
					01-15-86	--	2.01	2,357.9	N	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	04-15-86	--	2.01	2,357.9	N	-	USGS-NV
					05-04-86	--	1.97	2,357.9	N	-	USGS-NV
					06-18-86	--	1.97	2,357.9	N	-	USGS-NV
					08-07-86	--	2.01	2,357.9	N	-	USGS-NV
					09-24-86	--	1.90	2,358.0	N	-	USGS-NV
					11-04-86	--	1.94	2,358.0	N	-	USGS-NV
					01-12-87	--	1.90	2,358.0	N	-	USGS-NV
					03-05-87	--	1.98	2,357.9	N	-	USGS-NV
					04-21-87	--	1.95	2,358.0	N	-	USGS-NV
					06-17-87	--	1.90	2,358.0	N	-	USGS-NV
					07-30-87	--	1.90	2,358.0	N	-	USGS-NV
					09-29-87	--	1.89	2,358.0	N	-	USGS-NV
					11-04-87	--	1.86	2,358.0	N	-	USGS-NV
					01-21-88	--	1.95	2,358.0	N	-	USGS-NV
					03-10-88	--	1.84	2,358.1	N	-	USGS-NV
					04-29-88	--	1.99	2,357.9	N	-	USGS-NV
					06-14-88	--	2.00	2,357.9	N	-	USGS-NV
					07-26-88	--	1.91	2,358.0	N	-	USGS-NV
					09-01-88	--	1.81	2,358.1	N	-	USGS-NV
					10-05-88	--	1.80	2,358.1	N	-	USGS-NV
					12-01-88	--	1.82	2,358.1	N	-	USGS-NV
					01-27-89	--	1.88	2,358.0	N	-	USGS-NV
					04-12-89	--	1.84	2,358.1	N	-	USGS-NV
					05-10-89	--	1.84	2,358.1	N	-	USGS-NV
					06-15-89	--	1.94	2,358.0	N	-	USGS-NV
					07-25-89	--	1.83	2,358.1	N	-	USGS-NV
					09-07-89	--	1.83	2,358.1	N	-	USGS-NV
					09-15-89	--	1.90	2,358.0	A	-	NPS
					11-15-89	--	1.94	2,358.0	A	-	NPS
					11-29-89	--	1.94	2,358.0	N	-	USGS-NV
					12-15-89	--	1.95	2,358.0	A	-	NPS
					01-15-90	--	1.95	2,358.0	A	-	NPS
					02-15-90	--	1.95	2,358.0	A	-	NPS
					04-15-90	--	1.94	2,358.0	A	-	NPS
					05-15-90	--	1.93	2,358.0	A	-	NPS

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-4	362532116172700	Devils Hole	2,359.9	--	06-15-90	--	1.95	2,358.0	A	-	NPS
					08-22-90	--	2.02	2,357.9	N	-	EMP
					09-15-90	--	1.99	2,357.9	A	-	NPS
					10-15-90	--	2.02	2,357.9	A	-	NPS
					11-15-90	--	2.03	2,357.9	A	-	NPS
					12-15-90	--	2.04	2,357.9	A	-	NPS
					01-15-91	--	2.04	2,357.9	A	-	NPS
					02-15-91	--	2.01	2,357.9	A	-	NPS
					03-15-91	--	1.99	2,357.9	A	-	NPS
					04-08-91	--	2.05	2,357.8	N	-	EMP
					05-15-91	--	1.96	2,357.9	A	-	NPS
					06-15-91	--	2.00	2,357.9	A	-	NPS
					07-15-91	--	2.02	2,357.9	A	-	NPS
					08-27-91	--	2.10	2,357.8	N	-	EMP
					09-15-91	--	2.02	2,357.9	A	-	NPS
					09-24-91	--	2.11	2,357.8	N	-	EMP
					01-27-92	--	2.14	2,357.8	N	-	EMP
					03-15-92	--	2.02	2,357.9	A	-	NPS
					03-18-92	--	2.17	2,357.7	N	-	EMP
					05-19-92	--	1.90	2,358.0	N	-	EMP
					08-19-92	--	2.22	2,357.7	N	-	EMP
					09-15-92	--	2.06	2,357.8	A	-	NPS
					10-15-92	--	2.01	2,357.9	A	-	NPS
					11-18-92	--	1.97	2,357.9	N	-	EMP
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	01-26-71	1430	49.72	2,354.4	S	-	USGS-NV
					02-22-71	1020	49.69	2,354.4	S	-	USGS-NV
					03-18-71	1045	49.79	2,354.3	S	-	USGS-NV
					04-16-71	0800	50.30	2,353.8	S	-	USGS-NV
					05-13-71	1430	49.74	2,354.4	S	-	USGS-NV
					06-10-71	1430	50.00	2,354.1	S	-	USGS-NV
					07-08-71	1020	50.82	2,353.3	S	-	USGS-NV
					08-09-71	1010	50.91	2,353.2	S	-	USGS-NV
					09-08-71	1530	50.97	2,353.1	S	-	USGS-NV
					10-07-71	0945	50.34	2,353.8	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	11-01-71	1040	50.50	2,353.6	S	-	USGS-NV
					12-01-71	1115	50.40	2,353.7	S	-	USGS-NV
					12-21-71	1155	50.38	2,353.7	S	-	USGS-NV
					01-24-72	0930	50.18	2,353.9	S	-	USGS-NV
					02-11-72	1150	50.10	2,354.0	S	-	USGS-NV
					02-18-72	1245	49.94	2,354.2	S	-	USGS-NV
					03-10-72	0915	50.06	2,354.0	S	-	USGS-NV
					04-10-72	1120	50.18	2,353.9	S	-	USGS-NV
					06-08-72	1200	50.76	2,353.3	S	-	USGS-NV
					06-30-72	0840	50.85	2,353.2	S	-	USGS-NV
					07-13-72	1545	50.99	2,353.1	S	-	USGS-NV
					08-03-72	1230	50.88	2,353.2	S	-	USGS-NV
					09-09-72	0800	50.95	2,353.2	S	-	USGS-NV
					10-10-72	1215	50.94	2,353.2	S	-	USGS-NV
					11-14-72	1130	50.87	2,353.2	S	-	USGS-NV
					12-08-72	1225	50.54	2,353.6	S	-	USGS-NV
					12-21-72	1400	50.33	2,353.8	S	-	USGS-NV
					01-18-73	1225	50.04	2,354.1	S	-	USGS-NV
					02-15-73	1135	49.97	2,354.1	S	-	USGS-NV
					03-20-73	0805	49.79	2,354.3	S	-	USGS-NV
					04-21-73	0910	50.53	2,353.6	S	-	USGS-NV
					05-24-73	0800	50.78	2,353.3	S	-	USGS-NV
					06-19-73	1335	50.82	2,353.3	S	-	USGS-NV
					06-24-73	0830	50.67	2,353.4	S	-	USGS-NV
					02-04-74	--	49.23	2,354.9	S	-	USGS-NV
					03-04-74	1005	49.41	2,354.7	S	-	USGS-NV
					12-02-74	1250	49.52	2,354.6	S	-	USGS-NV
					01-03-75	1125	49.36	2,354.7	S	-	USGS-NV
					03-03-75	1105	49.08	2,355.0	S	-	USGS-NV
					04-02-75	1245	49.19	2,354.9	S	-	USGS-NV
					12-30-75	1645	49.19	2,354.9	S	-	USGS-NV
					02-03-76	1600	48.94	2,355.2	S	-	USGS-NV
					03-02-76	0900	48.93	2,355.2	S	-	USGS-NV
					10-14-76	1000	49.18	2,354.9	S	-	USGS-NV
					11-30-76	1615	49.04	2,355.1	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	01-04-77	1600	48.87	2,355.2	S	-	USGS-NV
					02-02-77	1200	48.93	2,355.2	S	-	USGS-NV
					03-01-77	1515	48.83	2,355.3	S	-	USGS-NV
					07-06-77	1200	49.06	2,355.0	S	-	USGS-NV
					09-01-77	1430	49.02	2,355.1	S	-	USGS-NV
					10-03-77	1345	48.96	2,355.1	S	-	USGS-NV
					11-02-77	1245	48.92	2,355.2	S	-	USGS-NV
					12-05-77	1145	48.84	2,355.3	S	-	USGS-NV
					01-03-78	1445	48.77	2,355.3	S	-	USGS-NV
					02-01-78	1430	48.80	2,355.3	S	-	USGS-NV
					03-14-78	1145	48.74	2,355.4	S	-	USGS-NV
					04-05-78	1200	48.70	2,355.4	S	-	USGS-NV
					05-10-78	1430	48.69	2,355.4	S	-	USGS-NV
					06-07-78	1215	49.00	2,355.1	S	-	USGS-NV
					07-06-78	1330	49.05	2,355.0	S	-	USGS-NV
					08-09-78	1130	48.74	2,355.4	S	-	USGS-NV
					09-07-78	1415	48.80	2,355.3	S	-	USGS-NV
					10-03-78	1100	48.68	2,355.4	S	-	USGS-NV
					11-02-78	1200	48.67	2,355.4	S	-	USGS-NV
					11-30-78	1545	48.57	2,355.5	S	-	USGS-NV
					01-10-79	1300	48.57	2,355.5	S	-	USGS-NV
					03-06-79	1200	48.55	2,355.6	S	-	USGS-NV
					04-13-79	1245	48.53	2,355.6	S	-	USGS-NV
					05-03-79	1200	48.52	2,355.6	S	-	USGS-NV
					06-15-79	1225	48.50	2,355.6	S	-	USGS-NV
					07-02-79	1230	48.66	2,355.4	S	-	USGS-NV
					08-03-79	0930	48.88	2,355.2	S	-	USGS-NV
					09-05-79	0930	48.80	2,355.3	S	-	USGS-NV
					10-03-79	1030	48.75	2,355.4	S	-	USGS-NV
					11-06-79	--	48.60	2,355.5	S	-	USGS-NV
					12-06-79	--	48.53	2,355.6	S	-	USGS-NV
					01-07-80	--	48.48	2,355.6	S	-	USGS-NV
					02-08-80	--	48.53	2,355.6	S	-	USGS-NV
					03-13-80	--	48.50	2,355.6	S	-	USGS-NV
					04-08-80	--	48.50	2,355.6	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	04-15-80	--	48.48	2,355.6	S	-	USGS-NV
					05-08-80	--	48.54	2,355.6	S	-	USGS-NV
					07-08-80	--	48.52	2,355.6	S	-	USGS-NV
					08-07-80	--	48.49	2,355.6	S	-	USGS-NV
					09-17-80	--	48.52	2,355.6	S	-	USGS-NV
					10-07-80	--	48.53	2,355.6	S	-	USGS-NV
					11-04-80	--	48.61	2,355.5	S	-	USGS-NV
					12-02-80	--	48.37	2,355.7	S	-	USGS-NV
					01-06-81	--	48.60	2,355.5	S	-	USGS-NV
					02-02-81	--	48.46	2,355.6	S	-	USGS-NV
					04-01-81	--	48.39	2,355.7	S	-	USGS-NV
					05-05-81	--	48.62	2,355.5	S	-	USGS-NV
					06-06-81	--	48.55	2,355.6	S	-	USGS-NV
					07-01-81	--	48.59	2,355.5	S	-	USGS-NV
					08-19-81	--	48.56	2,355.5	S	-	USGS-NV
					09-04-81	--	48.56	2,355.5	S	-	USGS-NV
					10-07-81	--	48.50	2,355.6	S	-	USGS-NV
					11-05-81	--	48.54	2,355.6	S	-	USGS-NV
					12-03-81	--	48.54	2,355.6	S	-	USGS-NV
					01-11-82	--	48.50	2,355.6	S	-	USGS-NV
					02-08-82	--	48.45	2,355.6	S	-	USGS-NV
					03-11-82	--	48.41	2,355.7	S	-	USGS-NV
					04-07-82	--	48.48	2,355.6	S	-	USGS-NV
					05-10-82	--	48.47	2,355.6	S	-	USGS-NV
					06-02-82	--	48.42	2,355.7	S	-	USGS-NV
					07-01-82	--	48.46	2,355.6	S	-	USGS-NV
					08-03-82	--	48.46	2,355.6	S	-	USGS-NV
					09-03-82	--	48.43	2,355.7	S	-	USGS-NV
					10-04-82	--	48.41	2,355.7	S	-	USGS-NV
					11-06-82	--	48.37	2,355.7	S	-	USGS-NV
					12-07-82	--	48.40	2,355.7	S	-	USGS-NV
					02-10-83	--	48.41	2,355.7	S	-	USGS-NV
					03-18-83	--	48.40	2,355.7	S	-	USGS-NV
					04-15-83	--	48.48	2,355.6	S	-	USGS-NV
					05-13-83	--	48.32	2,355.8	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	06-09-83	--	48.37	2,355.7	S	-	USGS-NV
					07-14-83	--	48.29	2,355.8	S	-	USGS-NV
					08-08-83	--	48.44	2,355.7	S	-	USGS-NV
					09-13-83	--	48.36	2,355.7	S	-	USGS-NV
					10-06-83	--	48.43	2,355.7	S	-	USGS-NV
					11-10-83	--	48.37	2,355.7	S	-	USGS-NV
					12-07-83	--	48.39	2,355.7	S	-	USGS-NV
					01-24-84	--	48.38	2,355.7	S	-	USGS-NV
					02-14-84	--	48.38	2,355.7	S	-	USGS-NV
					03-08-84	--	48.32	2,355.8	S	-	USGS-NV
					04-13-84	--	48.27	2,355.8	S	-	USGS-NV
					05-08-84	--	48.34	2,355.8	S	-	USGS-NV
					06-15-84	--	48.36	2,355.7	S	-	USGS-NV
					07-17-84	--	48.30	2,355.8	S	-	USGS-NV
					09-13-84	--	48.32	2,355.8	S	-	USGS-NV
					10-12-84	--	48.40	2,355.7	S	-	USGS-NV
					12-06-84	--	48.40	2,355.7	S	-	USGS-NV
					02-16-85	--	48.25	2,355.8	S	-	USGS-NV
					03-07-85	--	48.38	2,355.7	S	-	USGS-NV
					05-06-85	--	48.26	2,355.8	S	-	USGS-NV
					07-31-85	--	48.88	2,355.2	S	-	USGS-NV
					10-08-85	--	48.14	2,356.0	S	-	USGS-NV
					12-05-85	--	48.30	2,355.8	S	-	USGS-NV
					01-15-86	--	48.08	2,356.0	S	-	USGS-NV
					03-04-86	--	48.33	2,355.8	S	-	USGS-NV
					05-14-86	--	48.19	2,355.9	S	-	USGS-NV
					06-18-86	--	48.20	2,355.9	S	-	USGS-NV
					08-07-86	--	48.09	2,356.0	S	-	USGS-NV
					09-24-86	--	48.00	2,356.1	S	-	USGS-NV
					11-04-86	--	48.15	2,356.0	S	-	USGS-NV
					01-12-87	--	48.10	2,356.0	S	-	USGS-NV
					01-15-87	--	48.06	2,356.0	S	-	USGS-NV
					03-05-87	--	48.16	2,355.9	S	-	USGS-NV
					04-21-87	--	48.14	2,356.0	S	-	USGS-NV
					06-17-87	--	48.12	2,356.0	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	07-30-87	--	48.14	2,356.0	S	-	USGS-NV
					11-04-87	--	48.16	2,355.9	S	-	USGS-NV
					01-21-88	--	48.18	2,355.9	S	-	USGS-NV
					03-10-88	--	48.07	2,356.0	S	-	USGS-NV
					06-14-88	--	48.20	2,355.9	S	-	USGS-NV
					07-26-88	--	48.18	2,355.9	S	-	USGS-NV
					09-01-88	--	48.12	2,356.0	S	-	USGS-NV
					10-05-88	--	48.19	2,355.9	S	-	USGS-NV
					02-01-88	--	48.12	2,356.0	S	-	USGS-NV
					01-27-89	--	48.16	2,355.9	S	-	USGS-NV
					04-12-89	--	48.12	2,356.0	S	-	USGS-NV
					07-25-89	--	48.12	2,356.0	S	-	USGS-NV
					09-07-89	--	48.13	2,356.0	S	-	USGS-NV
					11-29-89	--	48.25	2,355.8	S	-	USGS-NV
					02-21-90	--	48.21	2,355.9	S	-	EMP
					05-01-90	--	48.18	2,355.9	S	-	EMP
					06-20-90	--	48.15	2,356.0	S	-	EMP
					07-25-90	--	48.25	2,355.8	S	-	EMP
					09-20-90	--	48.20	2,355.9	S	-	EMP
					04-08-91	--	48.32	2,355.8	S	-	EMP
					09-24-91	--	48.33	2,355.8	S	-	EMP
					11-20-91	--	48.36	2,355.7	S	-	EMP
					12-12-91	--	48.37	2,355.7	S	-	EMP
					01-13-92	--	48.38	2,355.7	S	-	EMP
					02-18-92	--	48.38	2,355.7	S	-	EMP
					03-18-92	--	48.35	2,355.8	S	-	EMP
					03-31-92	--	48.29	2,355.8	S	-	USFWS
					04-13-92	--	48.19	2,355.9	S	-	EMP
					04-30-92	0955	48.17	2,355.9	S	-	USFWS
					05-19-92	--	48.09	2,356.0	S	-	EMP
					05-27-92	1050	48.18	2,355.9	S	-	USFWS
					06-16-92	--	48.25	2,355.8	S	-	EMP
					06-29-92	1201	48.32	2,355.8	S	-	USFWS
					07-01-92	0840	48.26	2,355.8	S	-	USFWS
					07-04-92	0820	48.27	2,355.8	S	-	USFWS

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-5	362529116171100	Devils Hole Well	2,404.1	0.90	07-07-92	0910	48.35	2,355.8	S	-	USFWS
					07-21-92	--	48.20	2,355.9	S	-	EMP
					07-31-92	1110	48.16	2,355.9	S	-	USFWS
					08-19-92	0655	47.84	2,356.3	S	-	EMP
					08-27-92	1150	48.08	2,356.0	S	-	USFWS
					09-17-92	0917	47.93	2,356.2	S	-	EMP
					10-01-92	1024	47.88	2,356.2	S	-	USFWS
					10-20-92	1450	47.81	2,356.3	S	-	EMP
					11-04-92	1045	47.96	2,356.1	S	-	USFWS
					11-18-92	1513	47.85	2,356.2	S	-	EMP
					11-30-92	1014	47.97	2,356.1	S	-	USFWS
					12-16-92	1420	47.82	2,356.3	S	-	EMP
					12-31-92	1125	47.93	2,356.2	S	-	USFWS
AM-6	362432116165701	Point of Rocks North Well	2,318.8	0.00	02-13-70	--	24.0	2,294.8	R	-	WRI 89-4101
					04-22-70	--	26.0	2,292.8	Z	-	WRI 89-4101
					05-21-70	--	60.4	2,258.4	Z	R	WRI 89-4101
					06-10-70	--	32.5	2,286.3	Z	R	WRI 89-4101
					03-09-72	--	30.0	2,288.8	Z	-	WRI 89-4101
					12-02-75	--	26.73	2,292.1	S	-	USGS-NV
					12-30-75	--	26.55	2,292.2	S	-	USGS-NV
					01-03-76	--	25.11	2,293.7	S	-	USGS-NV
					08-03-76	--	24.07	2,294.7	S	-	USGS-NV
					09-02-76	--	23.73	2,295.1	S	-	USGS-NV
					10-13-76	--	24.80	2,294.0	S	-	USGS-NV
					11-01-76	--	24.81	2,294.0	S	-	USGS-NV
					11-30-76	--	24.01	2,294.8	S	-	USGS-NV
					01-04-77	--	23.82	2,295.0	S	-	USGS-NV
					02-02-77	--	23.79	2,295.0	S	-	USGS-NV
					03-02-77	--	23.80	2,295.0	S	-	USGS-NV
					04-05-77	--	25.01	2,293.8	S	-	USGS-NV
					05-04-77	--	25.35	2,293.4	S	-	USGS-NV
					06-01-77	--	25.31	2,293.5	S	-	USGS-NV
					07-06-77	--	23.75	2,295.0	S	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-6	362432116165701	Point of Rocks North Well	2,318.8	0.00	08-02-77	--	23.88	2,294.9	S	-	WRI 89-4101
					09-01-77	--	23.81	2,295.0	S	-	WRI 89-4101
					10-03-77	--	23.77	2,295.0	S	-	WRI 89-4101
					11-02-77	--	23.73	2,295.1	S	-	WRI 89-4101
					12-05-77	--	22.70	2,296.1	S	-	WRI 89-4101
					01-13-78	--	21.82	2,297.0	S	-	WRI 89-4101
					02-02-78	--	22.22	2,296.6	S	-	WRI 89-4101
					03-14-78	--	22.15	2,296.6	S	-	WRI 89-4101
					04-05-78	--	22.15	2,296.6	S	-	WRI 89-4101
					05-10-78	--	22.20	2,296.6	S	-	WRI 89-4101
					06-07-78	--	22.30	2,296.5	S	-	WRI 89-4101
					07-06-78	--	22.21	2,296.6	S	-	WRI 89-4101
					08-09-78	--	22.55	2,296.2	S	-	WRI 89-4101
					09-11-78	--	21.90	2,296.9	S	-	WRI 89-4101
					10-03-78	--	21.72	2,297.1	S	-	WRI 89-4101
					11-02-78	--	21.78	2,297.0	S	-	WRI 89-4101
					12-01-78	--	21.67	2,297.1	S	-	WRI 89-4101
					01-10-79	--	21.83	2,297.0	S	-	WRI 89-4101
					02-08-79	--	21.74	2,297.1	S	-	WRI 89-4101
					03-06-79	--	21.78	2,297.0	S	-	WRI 89-4101
					04-13-79	--	21.78	2,297.0	S	-	WRI 89-4101
					05-03-79	--	21.86	2,296.9	S	-	WRI 89-4101
					06-14-79	--	21.58	2,297.2	S	-	WRI 89-4101
					07-02-79	--	23.32	2,295.5	S	-	USGS-NV
					08-03-79	--	24.19	2,294.6	S	-	USGS-NV
					09-05-79	--	23.27	2,295.5	S	-	USGS-NV
					10-03-79	--	22.47	2,296.3	S	-	USGS-NV
					11-06-79	--	22.43	2,296.4	S	-	USGS-NV
					12-06-79	--	22.28	2,296.5	S	-	USGS-NV
					01-07-80	--	22.26	2,296.5	S	-	USGS-NV
					02-08-80	--	22.54	2,296.3	S	-	USGS-NV
					03-13-80	--	22.59	2,296.2	S	-	USGS-NV
					04-08-80	--	22.61	2,296.2	S	-	USGS-NV
					05-08-80	--	23.40	2,295.4	S	-	USGS-NV
					07-08-80	--	23.32	2,295.5	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-6	362432116165701	Point of Rocks North Well	2,318.8	0.00	08-07-80	--	23.34	2,295.5	S	-	USGS-NV
					09-17-80	--	23.42	2,295.4	S	-	USGS-NV
					10-07-80	--	23.60	2,295.2	S	-	USGS-NV
					11-04-80	--	23.50	2,295.3	S	-	USGS-NV
					12-02-80	--	23.60	2,295.2	S	-	USGS-NV
					01-06-81	--	23.79	2,295.0	S	-	USGS-NV
					02-02-81	--	23.89	2,294.9	S	-	USGS-NV
					04-01-81	--	23.90	2,294.9	S	-	USGS-NV
					05-05-81	--	25.01	2,293.8	S	-	USGS-NV
					06-06-81	--	23.94	2,294.9	S	-	USGS-NV
					07-01-81	--	23.85	2,295.0	S	-	USGS-NV
					08-19-81	--	23.70	2,295.1	S	-	USGS-NV
					09-04-81	--	23.72	2,295.1	S	-	USGS-NV
					10-07-81	--	23.81	2,295.0	S	-	USGS-NV
					11-05-81	--	23.70	2,295.1	S	-	USGS-NV
					12-03-81	--	23.65	2,295.2	S	-	USGS-NV
					01-11-82	--	23.49	2,295.3	S	-	USGS-NV
					02-08-82	--	23.49	2,295.3	S	-	USGS-NV
					03-11-82	--	23.57	2,295.2	S	-	USGS-NV
					04-07-82	--	23.61	2,295.2	S	-	USGS-NV
					05-10-82	--	23.60	2,295.2	S	-	USGS-NV
					06-02-82	--	23.48	2,295.3	S	-	USGS-NV
					07-01-82	--	23.69	2,295.1	S	-	USGS-NV
					08-03-82	--	23.70	2,295.1	S	-	USGS-NV
					09-03-82	--	23.71	2,295.1	S	-	USGS-NV
					10-04-82	--	23.60	2,295.2	S	-	USGS-NV
					11-06-82	--	23.59	2,295.2	S	-	USGS-NV
					12-07-82	--	23.61	2,295.2	S	-	USGS-NV
					02-10-83	--	23.72	2,295.1	S	-	USGS-NV
					03-18-83	--	23.78	2,295.0	S	-	USGS-NV
					04-15-83	--	23.80	2,295.0	S	-	USGS-NV
					05-13-83	--	23.60	2,295.2	S	-	USGS-NV
					06-09-83	--	23.60	2,295.2	S	-	USGS-NV
					07-14-83	--	23.49	2,295.3	S	-	USGS-NV
					08-08-83	--	23.42	2,295.4	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-6	362432116165701	Point of Rocks North Well	2,318.8	0.00	09-13-83	--	23.55	2,295.2	S	-	USGS-NV
					10-06-83	--	23.50	2,295.3	S	-	USGS-NV
					11-10-83	--	23.50	2,295.3	S	-	USGS-NV
					12-07-83	--	22.55	2,296.2	S	-	USGS-NV
					01-24-84	--	22.45	2,296.4	S	-	USGS-NV
					02-14-84	--	22.49	2,296.3	S	-	USGS-NV
					03-08-84	--	22.34	2,296.5	S	-	USGS-NV
					04-13-84	--	22.27	2,296.5	S	-	USGS-NV
					05-08-84	--	22.30	2,296.5	S	-	USGS-NV
					06-15-84	--	22.31	2,296.5	S	-	USGS-NV
					07-17-84	--	22.96	2,295.8	S	-	USGS-NV
					09-03-84	--	23.04	2,295.8	S	-	USGS-NV
					10-12-84	--	22.87	2,295.9	S	-	USGS-NV
					12-06-84	--	22.74	2,296.1	S	-	USGS-NV
					02-16-85	--	22.59	2,296.2	S	-	USGS-NV
					03-07-85	--	22.70	2,296.1	S	-	USGS-NV
					05-06-85	--	22.88	2,295.9	S	-	USGS-NV
					07-31-85	--	22.95	2,295.8	S	-	USGS-NV
					10-08-85	--	22.65	2,296.2	S	-	WRI 89-4101
					12-05-85	--	22.55	2,296.2	S	-	WRI 89-4101
					01-15-86	--	22.29	2,296.5	S	-	WRI 89-4101
					03-04-86	--	22.63	2,296.2	S	-	WRI 89-4101
					05-14-86	--	22.63	2,296.2	S	-	WRI 89-4101
					06-18-86	--	22.63	2,296.2	S	-	WRI 89-4101
					08-07-86	--	22.63	2,296.2	S	-	WRI 89-4101
					09-24-86	--	22.55	2,296.2	S	-	WRI 89-4101
					11-04-86	--	22.43	2,296.4	S	-	WRI 89-4101
					01-12-87	--	22.17	2,296.6	S	-	WRI 89-4101
					03-05-87	--	22.45	2,296.4	S	-	WRI 89-4101
					03-17-87	--	21.99	2,296.8	S	-	WRI 89-4101
					04-21-87	--	22.51	2,296.3	S	-	WRI 89-4101
					06-17-87	--	22.59	2,296.2	S	-	WRI 89-4101
					08-04-87	--	22.53	2,296.3	S	-	WRI 89-4101
					11-04-87	--	21.96	2,296.8	S	-	WRI 89-4101
					01-21-88	--	21.14	2,297.7	S	-	WRI 89-4101

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-6	362432116165701	Point of Rocks North Well	2,318.8	0.00	03-10-88	--	21.24	2,297.6	S	-	WRI 89-4101
					06-14-88	--	21.76	2,297.0	S	-	WRI 89-4101
					07-26-88	--	21.84	2,297.0	S	-	WRI 89-4101
					09-01-88	--	21.83	2,297.0	S	-	WRI 89-4101
					10-05-88	--	21.84	2,297.0	S	-	WRI 89-4101
					12-01-88	--	21.67	2,297.1	S	-	WRI 89-4101
					07-25-89	--	21.92	2,296.9	S	-	USGS-NV
					02-21-90	--	21.99	2,296.8	S	-	EMP
					04-10-90	--	21.98	2,296.8	S	-	USFWS
					05-02-90	--	22.01	2,296.8	S	-	EMP
					05-21-90	--	21.92	2,296.9	S	-	USFWS
					06-13-90	--	21.88	2,296.9	S	-	USFWS
					06-20-90	--	21.91	2,296.9	S	-	EMP
					07-13-90	--	21.90	2,296.9	S	-	USFWS
					08-21-90	--	21.93	2,296.9	S	-	USFWS
					09-11-90	--	21.99	2,296.8	S	-	USFWS
					09-20-90	--	21.95	2,296.8	S	-	EMP
					10-17-90	--	21.89	2,296.9	S	-	USFWS
					11-13-90	--	21.81	2,297.0	S	-	USFWS
					12-18-90	--	21.76	2,297.0	S	-	USFWS
					01-14-91	--	21.69	2,297.1	S	-	USFWS
					02-12-91	--	21.60	2,297.2	S	-	USFWS
					03-14-91	--	21.56	2,297.2	S	-	USFWS
					04-08-91	--	24.88	2,293.9	S	-	EMP
					04-24-91	--	21.62	2,297.2	S	-	USFWS
					06-21-91	--	21.90	2,296.9	S	-	USFWS
					07-19-91	--	22.03	2,296.8	S	-	USFWS
					08-14-91	--	22.06	2,296.7	S	-	USFWS
					09-24-91	--	22.04	2,296.8	S	-	EMP
					11-20-91	--	21.82	2,297.0	S	-	EMP
					11-25-91	--	21.84	2,297.0	S	-	USFWS
					12-12-91	--	21.81	2,297.0	S	-	EMP
					01-03-92	--	21.92	2,296.9	S	-	USFWS
					01-13-92	--	21.91	2,296.9	S	-	EMP
					01-31-92	1250	21.85	2,297.0	S	-	USFWS

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-6	362432116165701	Point of Rocks North Well	2,318.8	0.00	02-18-92	--	21.82	2,297.0	S	-	EMP
					02-27-92	1135	21.80	2,297.0	S	-	USFWS
					03-17-92	--	21.78	2,297.0	S	-	EMP
					03-30-92	1230	21.76	2,297.0	S	-	USFWS
					04-13-92	--	21.77	2,297.0	S	-	EMP
					04-30-92	1100	21.80	2,297.0	S	-	USFWS
					05-20-92	1616	21.86	2,296.9	S	-	EMP
					05-27-92	1225	21.90	2,296.9	S	-	USFWS
					06-16-92	0758	21.97	2,296.8	S	-	EMP
					06-29-92	1300	21.24	2,297.6	S	-	USFWS
					07-21-92	0807	21.34	2,297.5	S	-	EMP
					07-31-92	1315	21.46	2,297.3	S	-	USFWS
					08-17-92	1605	21.33	2,297.5	S	-	EMP
					08-27-92	1425	21.40	2,297.4	S	-	USFWS
					09-16-92	1715	21.29	2,297.5	S	-	EMP
					10-01-92	1130	21.29	2,297.5	S	-	USFWS
					10-20-92	1545	21.23	2,297.6	S	-	EMP
					11-04-92	1145	21.18	2,297.6	S	-	USFWS
					11-18-92	1410	21.24	2,297.6	S	-	EMP
					11-30-92	--	21.16	2,297.6	S	-	USFWS
					12-17-92	1105	21.08	2,297.7	S	-	EMP
					12-31-92	--	21.16	2,297.6	S	-	USFWS
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	04-22-70	--	68.5	2,265.0	Z	S	WRI 89-4101
					05-14-70	--	43.4	2,290.1	Z	S	WRI 89-4101
					05-21-70	--	82.7	2,250.8	Z	S	WRI 89-4101
					05-28-70	--	72.42	2,261.1	Z	S	WRI 89-4101
					06-03-70	--	48.15	2,285.4	Z	S	WRI 89-4101
					06-10-70	--	35.28	2,298.2	Z	S	WRI 89-4101
					10-29-70	--	49.92	2,283.6	Z	S	WRI 89-4101
					03-25-71	--	58.17	2,275.3	Z	S	WRI 89-4101
					03-09-72	--	25.70	2,307.8	Z	-	WRI 89-4101
					12-02-74	1215	28.93	2,304.6	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	01-03-75	1010	26.40	2,307.1	S	-	USGS-NV
					02-03-75	1045	25.51	2,308.0	S	-	USGS-NV
					03-03-75	1030	24.25	2,309.3	S	-	USGS-NV
					04-02-75	1125	25.27	2,308.2	S	-	USGS-NV
					12-30-75	1700	25.83	2,307.7	S	-	USGS-NV
					01-30-76	1700	24.02	2,309.5	S	-	USGS-NV
					02-03-76	1230	23.88	2,309.6	S	-	USGS-NV
					03-01-76	1430	25.67	2,307.8	S	-	USGS-NV
					08-03-76	1600	24.62	2,308.9	S	-	USGS-NV
					09-02-76	1545	25.98	2,307.5	S	-	USGS-NV
					11-30-76	1330	25.38	2,308.1	S	-	USGS-NV
					01-04-77	1330	25.15	2,308.4	S	-	USGS-NV
					02-02-77	1415	24.40	2,309.1	S	-	USGS-NV
					03-02-77	1515	24.82	2,308.7	S	-	USGS-NV
					07-06-77	1400	23.33	2,310.2	S	-	USGS-NV
					08-02-77	1115	25.51	2,308.0	S	-	USGS-NV
					09-01-77	1200	24.33	2,309.2	S	-	USGS-NV
					10-03-77	1545	23.53	2,310.0	S	-	USGS-NV
					11-02-77	1000	23.16	2,310.3	S	-	USGS-NV
					12-05-77	1345	22.69	2,310.8	S	-	USGS-NV
					01-13-78	1030	22.02	2,311.5	S	-	USGS-NV
					02-02-78	1015	21.92	2,311.6	S	-	USGS-NV
					04-05-78	1000	21.48	2,312.0	S	-	USGS-NV
					05-10-78	1145	21.45	2,312.0	S	-	USGS-NV
					06-07-78	1030	21.50	2,312.0	S	-	USGS-NV
					07-06-78	1145	20.90	2,312.6	S	-	USGS-NV
					09-11-78	1045	21.83	2,311.7	S	-	USGS-NV
					10-03-78	0945	21.13	2,312.4	S	-	USGS-NV
					11-02-78	1015	20.46	2,313.0	S	-	USGS-NV
					12-01-78	1230	19.83	2,313.7	S	-	USGS-NV
					01-10-79	1100	19.28	2,314.2	S	-	USGS-NV
					03-06-79	1000	18.80	2,314.7	S	-	USGS-NV
					04-13-79	1200	18.74	2,314.8	S	-	USGS-NV
					05-03-79	1030	18.66	2,314.8	S	-	USGS-NV
					06-14-79	1400	20.95	2,312.6	S	-	USGS-NV

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	10-03-79	1230	21.84	2,311.7	S	-	USGS-NV
					11-06-79	1200	21.12	2,312.4	S	-	USGS-NV
					12-06-79	1125	20.25	2,313.3	S	-	USGS-NV
					01-07-80	1230	20.42	2,313.1	S	-	USGS-NV
					02-08-80	0930	19.69	2,313.8	S	-	USGS-NV
					03-13-80	0930	19.07	2,314.4	S	-	USGS-NV
					04-08-80	1145	20.60	2,312.9	S	-	USGS-NV
					05-08-80	1030	19.61	2,313.9	S	-	USGS-NV
					07-08-80	0715	20.00	2,313.5	S	-	USGS-NV
					08-07-80	0900	19.02	2,314.5	S	-	USGS-NV
					09-17-80	1100	20.83	2,312.7	S	-	USGS-NV
					10-07-80	0715	19.53	2,314.0	S	-	USGS-NV
					11-04-80	1130	19.35	2,314.2	S	-	USGS-NV
					12-02-80	1030	19.05	2,314.4	S	-	USGS-NV
					01-06-81	1145	20.43	2,313.1	S	-	USGS-NV
					02-02-81	1045	19.23	2,314.3	S	-	USGS-NV
					03-12-81	1230	18.59	2,314.9	S	-	USGS-NV
					04-01-81	1330	18.42	2,315.1	S	-	USGS-NV
					06-06-81	0745	20.96	2,312.5	S	-	USGS-NV
					07-01-81	0715	20.27	2,313.2	S	-	USGS-NV
					08-19-81	0700	18.46	2,315.0	S	-	USGS-NV
					09-04-81	0700	18.33	2,315.2	S	-	USGS-NV
					10-07-81	1045	18.24	2,315.3	S	-	USGS-NV
					11-05-81	0945	18.18	2,315.3	S	-	USGS-NV
					12-03-81	1100	17.33	2,316.2	S	-	USGS-NV
					01-11-82	1115	17.13	2,316.4	S	-	USGS-NV
					02-08-82	1130	16.76	2,316.7	S	-	USGS-NV
					03-11-82	1045	16.78	2,316.7	S	-	USGS-NV
					04-07-82	1045	16.66	2,316.8	S	-	USGS-NV
					05-10-82	1100	16.70	2,316.8	S	-	USGS-NV
					06-02-82	1130	16.81	2,316.7	S	-	USGS-NV
					07-01-82	1145	16.82	2,316.7	S	-	USGS-NV
					08-03-82	0830	16.80	2,316.7	S	-	USGS-NV
					09-03-82	1000	16.73	2,316.8	S	-	USGS-NV
					10-04-82	1115	16.76	2,316.7	S	-	USGS-NV

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	11-06-82	1345	16.66	2,316.8	S	-	USGS-NV
					12-07-82	1200	16.62	2,316.9	S	-	USGS-NV
					02-10-83	1215	16.53	2,317.0	S	-	USGS-NV
					03-18-83	1130	16.46	2,317.0	S	-	USGS-NV
					04-15-83	1215	16.52	2,317.0	S	-	USGS-NV
					05-13-83	1345	16.31	2,317.2	S	-	USGS-NV
					06-09-83	1130	16.28	2,317.2	S	-	USGS-NV
					07-14-83	0900	16.33	2,317.2	S	-	USGS-NV
					08-08-83	1100	16.30	2,317.2	S	-	USGS-NV
					09-13-83	1015	16.33	2,317.2	S	-	USGS-NV
					10-06-83	1045	16.25	2,317.3	S	-	USGS-NV
					11-10-83	1100	16.18	2,317.3	S	-	USGS-NV
					12-07-83	1045	16.14	2,317.4	S	-	USGS-NV
					01-24-84	1045	16.06	2,317.4	S	-	USGS-NV
					02-14-84	0930	16.08	2,317.4	S	-	USGS-NV
					03-08-84	1245	16.05	2,317.4	S	-	USGS-NV
					04-13-84	1315	15.94	2,317.6	S	-	USGS-NV
					05-08-84	1115	15.94	2,317.6	S	-	USGS-NV
					06-15-84	1115	15.92	2,317.6	S	-	USGS-NV
					07-17-84	1030	15.84	2,317.7	S	-	USGS-NV
					09-13-84	1115	15.66	2,317.8	S	-	USGS-NV
					10-12-84	1130	15.53	2,318.0	S	-	USGS-NV
					12-06-84	1130	15.42	2,318.1	S	-	USGS-NV
					02-16-85	1130	15.18	2,318.3	S	-	USGS-NV
					03-07-85	1045	15.33	2,318.2	S	-	USGS-NV
					05-06-85	1200	15.39	2,318.1	S	-	USGS-NV
					07-31-85	1045	15.58	2,317.9	S	-	USGS-NV
					10-08-85	1330	15.23	2,318.3	S	-	USGS-NV
					10-22-85	1400	15.21	2,318.3	S	-	USGS-NV
					12-05-85	1300	14.94	2,318.6	S	-	USGS-NV
					01-15-86	1345	14.71	2,318.8	S	-	USGS-NV
					03-04-86	1200	14.81	2,318.7	S	-	USGS-NV
					04-15-86	1300	14.76	2,318.7	S	-	USGS-NV
					05-14-86	1200	14.76	2,318.7	S	-	USGS-NV
					06-18-86	1200	14.78	2,318.7	S	-	USGS-NV

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	08-07-86	1200	14.68	2,318.8	S	-	USGS-NV
					09-24-86	1145	14.43	2,319.1	S	-	USGS-NV
					11-04-86	1400	14.24	2,319.3	S	-	USGS-NV
					01-12-87	1230	13.92	2,319.6	S	-	USGS-NV
					03-05-87	--	13.79	2,319.7	S	-	USGS-NV
					03-17-87	--	13.83	2,319.7	S	-	USGS-NV
					04-21-87	--	13.82	2,319.7	S	-	USGS-NV
					08-04-87	--	13.89	2,319.6	S	-	USGS-NV
					08-25-87	--	13.41	2,320.1	S	-	USGS-NV
					09-29-87	--	13.1	2,320.4	T	-	USGS-NV
					11-04-87	1200	12.6	2,320.9	T	-	USGS-NV
					01-21-88	1300	12.1	2,321.4	T	-	USGS-NV
					03-10-88	--	11.96	2,321.5	S	-	USGS-NV
					04-29-88	0900	11.9	2,321.6	T	-	USGS-NV
					06-14-88	--	11.9	2,321.6	T	-	USGS-NV
					07-26-88	1200	11.9	2,321.6	T	-	USGS-NV
					09-01-88	--	11.9	2,321.6	T	-	USGS-NV
					10-05-88	--	11.8	2,321.7	T	-	USGS-NV
					12-01-88	--	11.6	2,321.9	T	-	USGS-NV
					01-27-89	--	11.5	2,322.0	T	-	USGS-NV
					04-12-89	--	11.5	2,322.0	T	-	USGS-NV
					06-15-89	--	10.7	2,322.8	T	-	USGS-NV
					07-25-89	--	11.78	2,321.7	S	-	USGS-NV
					09-07-89	--	10.8	2,322.7	T	-	USGS-NV
					11-29-89	--	11.76	2,321.7	S	-	USGS-NV
					02-21-90	--	12.28	2,321.2	S	-	EMP
					04-10-90	--	11.63	2,321.9	S	-	USFWS
					05-02-90	--	12.22	2,321.3	S	-	EMP
					05-21-90	--	11.65	2,321.8	S	-	USFWS
					08-21-90	--	11.53	2,322.0	S	-	USFWS
					09-11-90	--	11.48	2,322.0	S	-	USFWS
					09-20-90	--	12.05	2,321.4	S	-	EMP
					10-17-90	--	11.30	2,322.2	S	-	USFWS
					11-13-90	--	11.18	2,322.3	S	-	USFWS
					12-18-90	--	11.04	2,322.5	S	-	USFWS

Table 2. Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	01-14-91	--	11.04	2,322.5	S	-	USFWS
					02-12-91	--	10.93	2,322.6	S	-	USFWS
					03-14-91	--	10.82	2,322.7	S	-	USFWS
					04-08-91	--	10.86	2,322.6	S	-	EMP
					04-24-91	--	10.78	2,322.7	S	-	USFWS
					05-21-91	--	10.78	2,322.7	S	-	USFWS
					06-21-91	--	10.80	2,322.7	S	-	USFWS
					07-19-91	--	10.82	2,322.7	S	-	USFWS
					08-14-91	--	10.82	2,322.7	S	-	USFWS
					09-24-91	--	10.77	2,322.7	S	-	EMP
					11-20-91	--	10.78	2,322.7	S	-	EMP
					11-25-91	--	10.71	2,322.8	S	-	USFWS
					12-12-91	--	10.72	2,322.8	S	-	EMP
					01-03-92	--	10.59	2,322.9	S	-	USFWS
					01-13-92	--	10.67	2,322.8	S	-	EMP
					01-31-92	1305	10.59	2,322.9	S	-	USFWS
					02-18-92	--	10.66	2,322.8	S	-	EMP
					02-27-92	1150	10.68	2,322.8	S	-	USFWS
					03-17-92	--	10.62	2,322.9	S	-	EMP
					03-30-92	1244	10.60	2,322.9	S	-	USFWS
					04-13-92	--	10.56	2,322.9	S	-	EMP
					04-30-92	1115	9.95	2,323.6	S	-	USFWS
					05-20-92	1636	10.28	2,323.2	S	-	EMP
					05-27-92	--	10.42	2,323.1	S	-	USFWS
					06-16-92	0810	10.67	2,322.8	S	-	EMP
					06-29-92	1315	9.42	2,324.1	S	-	USFWS
					07-21-92	0834	9.38	2,324.1	S	-	EMP
					07-31-92	1330	9.51	2,324.0	S	-	USFWS
					08-17-92	1645	9.60	2,323.9	S	-	EMP
					08-27-92	1445	9.73	2,323.8	S	-	USFWS
					09-16-92	1744	9.85	2,323.6	S	-	EMP
					10-01-92	1305	9.93	2,323.6	S	-	USFWS
					10-20-92	1615	9.96	2,323.5	S	-	EMP
					11-18-92	1440	10.04	2,323.5	S	-	EMP
					11-30-92	1116	10.16	2,323.3	S	-	USFWS

Table 2 Periodic measurements of water levels at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Land-surface altitude (feet above sea level)	Height of measurement point (feet above land surface)	Water-level measurement						
					Date	Time	Depth to water (feet below land surface)	Altitude of water surface (feet above sea level)	Method	Status	Data source
AM-7	362417116163600	Point of Rocks South Well	2,333.5	0.80	12-13-92	1155	10.13	2,323.4	S	-	USFWS
					12-17-92	1135	10.05	2,323.4	S	-	EMP
DV-3	362230116392901	Travertine Point 1 Well	2,728.4	2.00	05-03-90	--	598.0	2,130.4	T	-	EMP
					07-25-90	--	599.6	2,128.8	T	-	EMP
					09-17-90	--	598.81	2,129.6	V	-	EMP
					11-21-91	--	599.13	2,129.3	V	-	EMP
					02-17-92	--	599.47	2,128.9	V	-	EMP
					03-18-92	--	599.39	2,129.0	V	-	EMP
					04-13-92	--	599.44	2,129.0	V	-	EMP
					05-20-92	0902	599.30	2,129.1	V	-	EMP
					06-15-92	1550	599.34	2,129.1	V	-	EMP
					07-20-92	1601	599.26	2,129.1	V	-	EMP
					08-20-92	0753	599.27	2,129.1	V	-	EMP
					09-16-92	1310	599.15	2,129.2	V	-	EMP
					10-20-92	1106	598.94	2,129.5	V	-	EMP
					11-18-92	0810	598.83	2,129.6	V	-	EMP
					12-17-92	0810	598.71	2,129.7	V	-	EMP

Table 3. Daily mean water level in well JF-3, May through December 1992

[--, data not available; monitoring began on May 28, 1992]

Day	Water level, in feet below land surface											
	January	February	March	April	May	June	July	August	September	October	November	December
1	--	--	--	--	--	709.98	710.04	710.14	710.03	709.98	710.30	710.04
2	--	--	--	--	--	709.91	710.14	710.07	710.11	709.80	710.12	709.69
3	--	--	--	--	--	709.97	710.04	709.98	710.03	709.95	710.27	709.82
4	--	--	--	--	--	709.87	710.00	710.03	710.05	710.08	710.23	709.89
5	--	--	--	--	--	709.78	710.04	710.06	710.10	710.14	710.03	710.02
6	--	--	--	--	--	709.84	710.06	710.07	710.03	710.19	710.12	710.07
7	--	--	--	--	--	710.01	710.17	710.08	710.09	710.24	709.99	709.91
8	--	--	--	--	--	710.08	710.25	710.10	710.06	710.05	709.82	710.11
9	--	--	--	--	--	710.07	710.15	710.14	710.04	709.99	709.89	710.29
10	--	--	--	--	--	710.03	709.96	710.10	710.05	710.15	710.20	710.17
11	--	--	--	--	--	710.03	709.87	710.02	710.02	710.18	710.36	709.86
12	--	--	--	--	--	709.98	709.98	710.02	710.00	710.05	710.25	709.94
13	--	--	--	--	--	709.97	710.11	710.14	709.99	709.86	710.15	710.26
14	--	--	--	--	--	709.86	710.11	710.17	709.95	709.90	710.10	710.17
15	--	--	--	--	--	709.96	710.04	710.07	710.01	710.09	710.01	710.02
16	--	--	--	--	--	710.11	710.04	709.96	710.14	710.14	709.91	710.23
17	--	--	--	--	--	710.08	710.08	709.97	710.10	710.13	709.86	709.88
18	--	--	--	--	--	710.00	710.09	710.05	710.05	710.04	709.95	709.95
19	--	--	--	--	--	709.98	710.03	710.04	710.06	710.01	710.03	710.31
20	--	--	--	--	--	709.95	709.93	709.97	710.03	709.97	710.05	710.29
21	--	--	--	--	--	710.04	709.98	709.89	710.10	709.98	710.17	710.18
22	--	--	--	--	--	710.14	709.96	709.87	710.15	710.26	709.84	710.28
23	--	--	--	--	--	710.04	710.02	709.99	710.06	710.25	709.97	710.37
24	--	--	--	--	--	709.95	710.11	710.08	709.90	710.09	710.15	710.17
25	--	--	--	--	--	709.97	710.23	710.21	710.05	710.05	710.36	710.11
26	--	--	--	--	--	710.03	710.20	710.32	710.20	710.06	710.51	709.99
27	--	--	--	--	--	710.04	710.12	710.27	710.17	709.96	710.20	709.85
28	--	--	--	--	--	709.98	710.06	710.13	710.12	709.83	709.94	709.72
29	--	--	--	--	709.98	709.90	709.99	710.04	710.13	709.77	710.15	709.80
30	--		--	--	710.07	709.93	710.03	710.02	710.10	709.85	710.26	710.15
31	--		--		710.11		710.11	709.99		710.19		710.22
MEAN	--	--	--	--	--	709.98	710.06	710.06	710.06	710.04	710.11	710.06
MAXIMUM	--	--	--	--	--	710.14	710.25	710.32	710.20	710.26	710.51	710.37
MINIMUM	--	--	--	--	--	709.78	709.87	709.87	709.90	709.77	709.82	709.69

Table 4. Daily mean water level in well AD-6, July through December 1992

[--, data not available; monitoring began on July 29, 1992]

Day	Water level, in feet below land surface											
	January	February	March	April	May	June	July	August	September	October	November	December
1	--	--	--	--	--	--	--	41.74	--	41.42	41.55	41.46
2	--	--	--	--	--	--	--	41.69	41.56	41.36	41.46	41.31
3	--	--	--	--	--	--	--	41.64	41.52	41.44	41.55	41.38
4	--	--	--	--	--	--	--	41.66	41.53	41.48	41.53	41.39
5	--	--	--	--	--	--	--	41.67	41.54	41.49	41.45	41.46
6	--	--	--	--	--	--	--	41.66	41.50	41.51	41.50	41.46
7	--	--	--	--	--	--	--	41.65	41.52	41.52	41.43	41.37
8	--	--	--	--	--	--	--	41.65	41.50	41.45	41.37	41.46
9	--	--	--	--	--	--	--	41.66	41.49	41.43	41.41	41.52
10	--	--	--	--	--	--	--	41.64	41.49	41.50	41.53	41.45
11	--	--	--	--	--	--	--	41.60	41.47	41.49	41.58	41.32
12	--	--	--	--	--	--	--	41.60	41.46	41.44	41.53	41.39
13	--	--	--	--	--	--	--	41.64	41.45	41.36	41.48	41.53
14	--	--	--	--	--	--	--	41.65	41.43	41.39	41.48	41.46
15	--	--	--	--	--	--	--	41.60	41.45	41.47	41.45	41.39
16	--	--	--	--	--	--	--	41.56	--	41.48	41.41	41.50
17	--	--	--	--	--	--	--	41.57	--	41.48	41.39	41.34
18	--	--	--	--	--	--	--	41.59	41.45	41.44	41.43	41.40
19	--	--	--	--	--	--	--	41.58	41.46	41.43	41.45	41.55
20	--	--	--	--	--	--	--	41.55	41.45	41.42	41.46	41.53
21	--	--	--	--	--	--	--	41.52	41.47	41.42	41.51	41.48
22	--	--	--	--	--	--	--	41.52	41.48	41.54	41.36	41.52
23	--	--	--	--	--	--	--	41.56	41.44	41.51	41.43	41.55
24	--	--	--	--	--	--	--	41.59	41.38	41.44	41.50	41.45
25	--	--	--	--	--	--	--	41.61	41.46	41.46	41.58	41.45
26	--	--	--	--	--	--	--	41.63	41.52	41.46	41.63	41.42
27	--	--	--	--	--	--	--	41.61	41.50	41.41	41.50	41.36
28	--	--	--	--	--	--	--	41.55	41.48	41.37	41.40	41.31
29	--	--	--	--	--	--	--	41.53	41.48	41.35	41.52	41.36
30	--		--	--	--	--	41.72	41.53	41.47	41.39	41.56	41.48
31	--		--		--		41.74	--		41.53		41.49
MEAN	--	--	--	--	--	--	--	--	--	41.45	41.48	41.44
MAXIMUM	--	--	--	--	--	--	--	--	--	41.54	41.63	41.55
MINIMUM	--	--	--	--	--	--	--	--	--	41.35	41.36	41.31

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
Time: Time measurement was made, in military time; -- indicates measurement time unknown.
Discharge: Reported to two significant figures.
Method: C, current meter; F, depth of water measured in flume and converted to discharge based on applicable discharge table for Parshall flume; U, method unknown; V, volumetric; Z, discharge represents monthly mean discharge and is reported for 15th of month.
Data source: EMP, Environmental-Monitoring Program (U.S. Geological Survey); NPS, National Park Service; Reported, unknown source (data existed in USGS data base); RSR 14, Walker and Eakin, 1963; USFWS, U.S. Fish and Wildlife Service; USGS-NV, Other Nevada District programs (U.S. Geological Survey).

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-1a	362924116203001	Fairbanks Spring	01-01-10	--	2,400	U	RSR 14
			07-14-23	--	2,000	U	RSR 14
			08-16-46	--	1,800	U	RSR 14
			02-01-53	--	1,700	U	RSR 14
			06-01-61	--	1,700	U	RSR 14
			07-23-62	--	1,700	U	RSR 14
			11-16-70	0940	1,300	C	USGS-NV
			11-24-70	0730	1,300	C	USGS-NV
			12-30-70	1040	1,300	C	USGS-NV
			01-11-71	1450	1,300	C	USGS-NV
			06-18-75	0925	1,100	C	USGS-NV
			07-01-75	1350	1,100	C	USGS-NV
			08-01-75	1040	1,300	C	USGS-NV
			09-04-75	1015	1,400	C	USGS-NV
			10-02-75	1145	1,300	C	USGS-NV
			11-06-75	1000	1,100	C	USGS-NV
			12-02-75	1400	1,300	C	USGS-NV
			02-03-76	1650	1,200	C	USGS-NV
			03-02-76	1200	1,200	C	USGS-NV
			04-01-76	1615	1,500	C	USGS-NV
			05-04-76	1600	1,300	C	USGS-NV
			06-01-76	1740	1,300	C	USGS-NV
			07-01-76	1345	1,400	C	USGS-NV
			08-04-76	1415	1,400	C	USGS-NV
			09-03-76	1330	1,400	C	USGS-NV

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-1a	362924116203001	Fairbanks Spring	10-14-76	1115	1,400	C	USGS-NV
			11-02-76	1215	1,300	C	USGS-NV
			12-01-76	1300	1,500	C	USGS-NV
			01-05-77	1015	1,500	C	USGS-NV
			02-02-77	1045	1,500	C	USGS-NV
			03-01-77	1400	1,500	F	USGS-NV
			04-04-77	1325	1,400	C	USGS-NV
			05-03-77	1230	1,400	C	USGS-NV
			06-01-77	1100	1,500	C	USGS-NV
			07-06-77	1030	1,500	C	USGS-NV
			08-01-77	1330	1,500	C	USGS-NV
			09-01-77	1530	1,500	C	USGS-NV
			10-03-77	1230	1,600	C	USGS-NV
			11-01-77	1445	1,500	C	USGS-NV
			12-05-77	1100	1,600	C	USGS-NV
			01-03-78	1330	1,600	C	USGS-NV
			02-01-78	1330	1,500	C	USGS-NV
			03-14-78	1040	1,600	C	USGS-NV
			04-05-78	1245	1,700	C	USGS-NV
			05-10-78	1500	1,700	C	USGS-NV
			06-06-78	1305	1,500	C	USGS-NV
			07-06-78	1430	1,600	C	USGS-NV
			08-09-78	0900	1,500	C	USGS-NV
			09-07-78	1330	1,500	C	USGS-NV
			10-02-78	1400	1,600	C	USGS-NV
			11-02-78	1215	1,600	C	USGS-NV
			11-30-78	1500	1,600	C	USGS-NV
			01-10-79	1315	1,700	C	USGS-NV
			02-08-79	1330	1,700	C	USGS-NV
			03-06-79	1230	1,700	C	USGS-NV

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-1a	362924116203001	Fairbanks Spring	04-13-79	1330	1,600	C	USGS-NV
			05-03-79	1445	1,600	C	USGS-NV
			07-02-79	1330	1,600	C	USGS-NV
			08-03-79	1000	1,600	C	USGS-NV
			10-03-79	1000	1,600	C	USGS-NV
			12-06-79	1330	1,600	C	USGS-NV
			01-07-80	1540	1,600	C	USGS-NV
			03-13-80	1130	1,600	C	USGS-NV
			04-08-80	1430	1,600	C	USGS-NV
			05-08-80	1245	1,600	C	USGS-NV
			06-05-80	0845	1,500	C	USGS-NV
			10-07-80	1000	1,600	C	USGS-NV
			11-04-80	0900	1,600	C	USGS-NV
			12-02-80	1130	1,600	C	USGS-NV
			03-12-81	1030	1,600	C	USGS-NV
			06-06-81	1100	1,700	C	USGS-NV
			07-01-81	--	1,600	U	Reported
			08-01-81	--	1,600	C	Reported
			09-01-81	--	1,600	C	Reported
			10-01-81	--	1,600	C	Reported
			01-11-82	1345	1,600	C	USGS-NV
			04-07-82	1230	1,700	C	USGS-NV
			07-01-82	1300	1,700	C	USGS-NV
			02-10-83	1330	1,800	C	USGS-NV
			03-18-83	1300	1,600	C	USGS-NV
			06-09-83	1245	1,700	C	USGS-NV
			07-26-88	1445	1,600	C	USGS-NV
			07-26-89	--	1,500	C	USGS-NV
			08-21-90	1810	1,100	C	EMP
			04-08-91	--	1,400	C	EMP

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-1a	362924116203001	Fairbanks Spring	08-26-91	1900	1,700	C	EMP
			01-27-92	1430	1,600	C	EMP
			03-18-92	1215	1,600	C	EMP
			08-18-92	1300	1,700	C	EMP
			11-17-92	--	1,700	F	EMP
AM-2	362755116190401	Five Springs Well	05-02-90	--	1.2	V	EMP
			06-20-90	--	.92	V	EMP
			08-24-90	--	.78	V	EMP
			09-20-90	--	3.8	V	EMP
			04-08-91	--	2.3	V	EMP
			11-20-91	--	1.2	V	EMP
			12-12-91	--	1.3	V	EMP
			01-14-92	--	1.3	V	EMP
			02-18-92	--	1.5	V	EMP
			03-18-92	--	1.4	V	EMP
			04-28-92	--	2.1	V	EMP
			05-19-92	--	.97	V	EMP
			06-16-92	--	.73	V	EMP
			07-21-92	--	6.4	V	EMP
			08-19-92	--	4.7	V	EMP
			09-17-92	--	6.3	V	EMP
			10-21-92	0730	2.8	V	EMP
			11-18-92	1600	3.5	V	EMP
			12-16-92	1330	2.0	V	EMP
AM-5a	362502116192301	Crystal Pool	01-31-53	--	2,800	U	RSR 14
			04-01-59	--	3,100	U	RSR 14
			06-01-61	--	3,000	U	RSR 14
			07-29-62	--	2,800	U	RSR 14
			10-03-70	--	3,000	C	USGS-NV

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-5a	362502116192301	Crystal Pool	11-16-70	--	2,600	C	USGS-NV
			11-23-70	--	3,000	C	USGS-NV
			12-08-70	--	2,700	C	USGS-NV
			12-30-70	--	2,500	C	USGS-NV
			01-11-71	--	2,300	C	USGS-NV
			09-21-73	--	2,400	C	USGS-NV
			03-03-75	--	3,300	F	USGS-NV
			08-06-82	--	2,700	F	USGS-NV
			01-29-86	--	2,600	C	USGS-NV
			03-18-87	--	2,600	C	USGS-NV
			08-25-87	1415	2,300	C	USGS-NV
			03-10-88	--	2,800	C	USGS-NV
			05-10-89	--	2,800	C	USGS-NV
			04-03-90	1300	2,700	C	USGS-NV
			08-25-90	1223	2,500	C	EMP
			11-16-90	1345	2,500	C	USGS-NV
			04-03-91	0950	3,800	C	USGS-NV
			04-08-91	1430	2,700	C	EMP
			09-05-91	1710	2,500	C	EMP
			11-05-91	1052	2,600	C	USGS-NV
			01-27-92	0944	2,500	C	EMP
			03-17-92	1435	2,900	C	EMP
			03-17-92	1100	2,400	C	USGS-NV
			05-19-92	1715	2,900	C	EMP
			08-19-92	1300	2,300	C	EMP
			10-14-92	1025	2,600	C	USGS-NV
			11-18-92	1052	2,600	C	EMP

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-8	362230116162001	Big Spring	01-01-16	--	1,100	U	RSR 14
			02-02-53	--	1,100	U	RSR 14
			06-01-61	--	1,100	U	RSR 14
			07-26-62	--	1,000	U	RSR 14
			11-17-70	1045	1,000	C	USGS-NV
			11-23-70	1140	880	C	USGS-NV
			12-01-70	1030	960	C	USGS-NV
			12-08-70	1150	960	C	USGS-NV
			12-14-70	1130	970	C	USGS-NV
			12-29-70	1200	1,100	C	USGS-NV
			09-21-73	1125	950	C	USGS-NV
			10-22-73	1120	1,000	C	USGS-NV
			03-18-75	1300	960	C	USGS-NV
			04-02-75	1045	1,100	C	USGS-NV
			04-30-75	1020	1,000	C	USGS-NV
			06-02-75	1300	1,100	C	USGS-NV
			07-01-75	1115	900	C	USGS-NV
			08-01-75	0820	960	C	USGS-NV
			09-04-75	0900	830	C	USGS-NV
			10-02-75	0850	820	C	USGS-NV
			11-05-75	1145	1,100	C	USGS-NV
			12-02-75	1015	890	C	USGS-NV
			12-30-75	1145	840	C	USGS-NV
			02-03-76	1120	880	C	USGS-NV
			03-01-76	1330	1,000	C	USGS-NV
			04-01-76	1245	880	C	USGS-NV
			05-04-76	0945	990	C	USGS-NV
			06-01-76	1215	960	C	USGS-NV
			07-09-76	0640	820	C	USGS-NV
			08-03-76	1415	970	C	USGS-NV

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-8	362230116162001	Big Spring	09-02-76	1445	840	C	USGS-NV
			10-13-76	1200	750	C	USGS-NV
			11-01-76	1400	810	C	USGS-NV
			11-30-76	1230	910	C	USGS-NV
			01-04-77	1215	740	C	USGS-NV
			02-02-77	1445	850	C	USGS-NV
			03-02-77	1600	930	C	USGS-NV
			04-05-77	1100	850	C	USGS-NV
			05-04-77	1200	810	C	USGS-NV
			06-01-77	1430	940	C	USGS-NV
			06-09-77	1245	1,100	C	USGS-NV
			07-06-77	1500	1,100	C	USGS-NV
			07-08-77	1135	1,100	C	USGS-NV
			08-02-77	0945	900	C	USGS-NV
			09-01-77	1045	970	C	USGS-NV
			10-03-77	1115	950	C	USGS-NV
			11-02-77	0915	1,000	C	USGS-NV
			12-05-77	0945	930	C	USGS-NV
			01-11-78	1100	920	C	USGS-NV
			02-02-78	0930	920	C	USGS-NV
			03-14-78	1015	910	C	USGS-NV
			04-05-78	0915	940	C	USGS-NV
			05-10-78	1045	910	C	USGS-NV
			06-07-78	0945	900	C	USGS-NV
			07-06-78	1115	900	C	USGS-NV
			08-09-78	0800	900	C	USGS-NV
			09-11-78	1000	850	C	USGS-NV
			10-03-78	0900	790	C	USGS-NV
			11-02-78	0930	860	C	USGS-NV
			12-01-78	1130	960	C	USGS-NV

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-8	362230116162001	Big Spring	01-10-79	1015	970	C	USGS-NV
			02-08-79	1015	940	C	USGS-NV
			03-06-79	0930	1,100	C	USGS-NV
			04-13-79	1030	920	C	USGS-NV
			05-03-79	1000	950	C	USGS-NV
			06-14-79	1245	1,000	C	USGS-NV
			07-02-79	1030	850	C	USGS-NV
			08-03-79	0730	930	C	USGS-NV
			10-03-79	0845	930	C	USGS-NV
			01-07-80	1125	940	C	USGS-NV
			04-08-80	1045	1,000	C	USGS-NV
			07-08-80	0630	890	C	USGS-NV
			10-07-80	0630	890	C	USGS-NV
			01-06-81	1015	970	C	USGS-NV
			04-01-81	1430	920	C	USGS-NV
			06-06-81	0700	960	C	USGS-NV
			07-01-81	--	840	U	Reported
			09-01-81	--	840	U	Reported
			10-01-81	--	870	U	Reported
			10-07-81	1000	860	C	USGS-NV
			04-07-82	1015	960	C	USGS-NV
			07-01-82	1045	890	C	USGS-NV
			02-10-83	1100	1,000	C	USGS-NV
			06-09-83	1030	920	C	USGS-NV
			01-15-86	--	890	C	USGS-NV
			07-26-89	--	970	C	USGS-NV
			04-08-91	1240	770	C	EMP
			09-24-91	1122	980	C	EMP
			01-27-92	1145	1,000	C	EMP
			03-17-92	1710	970	C	EMP

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
AM-8	362230116162001	Big Spring	05-19-92	1930	840	C	EMP
			07-31-92	--	990	C	USFWS
			08-19-92	1735	680	C	EMP
			08-27-92	--	1,100	C	USFWS
			10-01-92	--	1,100	C	USFWS
			11-04-92	--	1,100	C	USFWS
			11-18-92	0805	1,000	C	USGS-NV
			11-30-92	--	1,100	C	USFWS
			12-31-92	--	1,000	C	USFWS
DV-1	362728116501101	Texas Spring	11-15-89	--	190	Z	NPS
			12-15-89	--	190	Z	NPS
			01-15-90	--	190	Z	NPS
			02-15-90	--	190	Z	NPS
			06-15-90	--	180	Z	NPS
			07-15-90	--	180	Z	NPS
			08-15-90	--	190	Z	NPS
			08-23-90	1825	150	C	EMP
			10-15-90	--	190	Z	NPS
			11-15-90	--	190	Z	NPS
			12-15-90	--	190	Z	NPS
			04-10-91	1000	160	C	EMP
			04-15-91	--	190	Z	NPS
			05-15-91	--	190	Z	NPS
			06-15-91	--	190	Z	NPS
			07-15-91	--	190	Z	NPS
			08-15-91	--	190	Z	NPS
			08-28-91	1100	130	C	EMP
			09-15-91	--	190	Z	NPS
			10-15-91	--	190	Z	NPS

Table 5. Ground-water discharge at monitoring sites in Yucca Mountain region, through December 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Discharge measurement				
			Date	Time	Discharge (gallons per minute)	Method	Data source
DV-1	362728116501101	Texas Spring	11-15-91	--	190	Z	NPS
			12-15-91	--	190	Z	NPS
			01-15-92	--	190	Z	NPS
			01-27-92	1640	210	C	EMP
			02-15-92	--	190	Z	NPS
			03-17-92	1356	170	C	EMP
			05-20-92	1112	160	C	EMP
			08-20-92	0920	170	C	EMP
			10-15-92	--	190	Z	NPS
			11-17-92	1215	180	C	EMP
DV-2	362252116425301	Navel Spring	08-23-90	1100	1.5	V	EMP
			08-28-91	1300	1.6	V	EMP
			03-17-92	1700	1.4	V	EMP
			05-20-92	1305	1.5	V	EMP
			08-20-92	1057	1.8	V	EMP
			11-17-92	1400	1.9	V	EMP

Table 6. Estimated annual ground-water withdrawals from wells in Yucca Mountain region, through 1992

Ground-water subbasin	Hydrographic area	Ground-water withdrawals[a]		
		Year	Millions of gallons	Acre-feet
Alkali Flat-Furnace Creek Ranch	Amargosa Desert[b]	1966	1,370	4,203
		1967	3,025	9,282
		1968	2,947	9,043
		1973	2,321	7,124
		1985	3,155	9,682
		1986	2,362	7,248
		1987	1,877	5,761
		1988	1,339	4,110
		1989	1,278	3,921
		1990	2,544	7,807
		1991	1,995	6,122
		1992	2,644	8,114
	Crater Flat[c]	1989	12.8	39
		1990	43.4	133
		1991	7.3	22
		1992	9.5	29
	Jackass Flats[c]	1961	30.0	92
		1962	60.8	187
		1981	37.2	114
		1982	18.7	57
		1983	70.6	217
		1984	65.9	202
		1985	53.6	164
		1986	46.0	141
		1987	52.9	162
		1988	46.0	141
		1989	50.6	155
		1990	51.7	159
		1991	51.2	157
		1992	38.9	119
Ash Meadows	Amargosa Desert[b] (excluding Ash Meadows area)	1992	16	50
	Amargosa Desert[d] (Ash Meadows area)	1969	650	2,000
		1970	2,200	6,900
		1971	2,200	6,900
		1972	2,000	6,100
		1973	1,400	4,400
		1974	1,300	4,100
		1975	1,200	3,800
		1976	1,200	3,700
		1977	620	1,900
		1978	10	40
		1979	85	260
		1980	10	30
		1981	30	80
		1982	<1	1
	Mercury Valley[c]	1962	4.2	13
		1963	2.7	8
		1964	30.7	94
		1965	25.4	78
		1966	47.3	145
		1967	56.1	172
		1968	52.7	162
		1969	78.1	240
		1970	69.4	213
		1971	96.1	295
		1983	56.8	174
		1984	82.1	252
		1985	41.6	128
		1986	34.9	107
		1987	34.7	106

Table 6. Estimated annual ground-water withdrawals from wells in Yucca Mountain region, through 1992--Continued

Ground-water subbasin	Hydrographic area	Ground-water withdrawals[a]		
		Year	Millions of gallons	Acre-feet
Ash Meadows	Mercury Valley[c]	1988	53.1	163
		1989	114.4	351
		1990	126.0	387
		1991	109.9	337
		1992	139.4	428

[a] See section "Ground-Water Withdrawals" for discussion of data sources.

[b] Data for this part of Amargosa Desert recompiled from ground-water pumpage inventories for entire Amargosa Desert, listed to nearest acre-foot. Conversions to millions of gallons are rounded to nearest 1 million gallons.

[c] Data recompiled from flowmeter readings listed to the nearest 0.1 million gallons. Conversions to acre-feet are rounded to nearest acre-foot.

[d] Data for this part of Amargosa Desert are approximated on basis of electrical-power consumption. Acre-foot values are rounded off as follows: to nearest 100 acre-feet for withdrawals greater than or equal to 1,000 acre-feet; to nearest 10 acre-feet for withdrawals greater than or equal to 10 acre-feet but less than 1,000 acre-feet; and to nearest acre-foot for withdrawals less than 10 acre-feet. Conversions to millions of gallons are reported to the equivalent number of significant figures.

Table 7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.

[Specific conductance, pH, water temperature, dissolved oxygen, total coliform, alkalinity, bicarbonate, and carbonate are measured in field, except those marked 'L,' which were measured in laboratory. Abbreviations and symbols: °C, degrees Celsius; K, less than ideal count; µg/L, micrograms per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius; mg/L, milligrams per liter; mL, milliliter; NTU, nephelometric turbidity units; --, not determined; <, less than]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Color (platinum-cobalt units)	Turbidity (NTU)	Oxygen, dissolved (mg/L)	Coliform, total, membrane filtered (colonies per 100 mL)
CF-1	365520116370301	Gexa Well 4	09-04-91	1015	377	8.0	32.0	--	1.0	--	--
			03-25-92	1025	392	7.7	31.5	10	1.2	--	K20
CF-2a	365821116343701	USW VH-2	09-04-91	1545	885	7.0	33.0	<1	.3	--	<1
			03-26-92	1005	900	7.0	32.5	5	.4	--	<1
J-13	364828116234001	J-13 WW	12-17-91	1207	281	7.6 L	30.0	1	.3	--	<2
J-12	364554116232401	J-12 WW	12-18-91	1540	283	7.6	26.5	3	.2	--	<1
JF-3	364528116232201	JF-3	03-04-92	1800	320	7.6	27.0	10	.7	5.4	--
			03-05-92	0520	311	7.7	26.5	5	.4	5.3	50
			03-05-92	1735	309	7.7	26.5	<1	.5	6.1	21
			03-05-92	1736	309	7.7	26.5	<1	.4	6.1	21
MV-1	363530116021401	Army 1 WW	12-18-91	1015	526	7.4	30.5	1	.4	--	<1
AD-2	363830116241401	Airport Well	03-24-92	1640	350	9.0	27.5	5	.5	--	--
AD-2a	363835116234001	NDOT Well	09-03-91	1530	504	8.0	28.5	1	.3	--	<1
			04-27-92	1415	560	8.1	26.0	<1	.2	--	K2
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	888	7.6	32.0	<1	1.4	--	<5
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	1,920	7.3	27.5	<1	.4	--	K33
			09-05-91	2000	1,890	7.3	26.0	<1	.3	--	<1
			03-24-92	0950	1,850	7.3	25.0	3	.3	--	<2
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	311	8.1	23.5	<1	.2	--	K6
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	678	7.4	29.5	1	.6	--	300
			08-26-91	1900	676	7.4	27.0	--	.2	--	K50
			08-18-92	0948	692	7.3	26.5	<1	.4	--	210
AM-2	362755116190401	Five Springs Well	08-24-90	1145	708	7.6	34.0	<1	.3	--	K14
			04-28-92	1020	697	7.6	32.5	<1	.4	--	510
			08-18-92	1600	700	7.5	34.0	<1	--	--	51

Table 7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Color (platinum-cobalt units)	Turbidity (NTU)	Oxygen, dissolved (mg/L)	Coliform, total, membrane filtered (colonies per 100 mL)
AM-3	362555116205301	Garners Well	08-27-90	1115	1,460	7.5	16.5	7	1.5	--	--
			08-31-91	1030	5,170	7.6	17.0	3	6.1	--	<1
AM-4	362532116172700	Devils Hole	08-22-90	1200	707	7.5	33.0	1	.6	--	K79
			08-27-91	1430	685	7.4	35.0	--	.3	--	270
			08-19-92	0942	706	7.4	34.0	<1	.5	--	K14
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	715	7.3	30.0	<1	.4	--	K26
			09-05-91	1430	696	7.4	31.0	25	.4	--	21
AM-8	362230116162001	Big Spring	08-22-90	1730	757	7.4	29.0	<1	.6	--	290
			08-27-91	0900	772	7.4	27.5	--	2.0	--	110
			08-19-92	1540	756	7.4	31.5	<1	.4	--	87
DV-1	362728116501101	Texas Spring	08-23-90	1630	956	8.2	31.5	<1	.3	--	<5
			08-28-91	0845	947	8.1	31.5	--	.5	--	<1
DV-2	362252116425301	Navel Spring	08-23-90	1130	935	8.4	27.0	2	1.0	--	<5
			08-28-91	1300	906	8.3	28.0	--	17.0	--	K14

Table 7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Hardness (mg/L as Ca CO_3)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate, (mg/L as HCO_3)	Carbonate, (mg/L as CO_3)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Bromide, dissolved (mg/L as Br)	Silica, dissolved (mg/L as SiO_2)	Solids, dissolved, residue at 180 °C (mg/L)	Solids, dissolved, sum of constituents (mg/L)
CF-1	09-04-91	1015	32	12	0.40	69	3.4	120	150	--	47	13	3.4	--	48	--	272
	03-25-92	1025	29	11	.34	73	3.1	130	150	--	44	14	3.0	--	48	263	274
CF-2a	09-04-91	1545	330	81	30	69	8.3	320	380	--	150	15	1.1	--	27	551	572
	03-26-92	1005	310	77	29	71	8.6	320	390	--	140	20	1.1	--	26	549	568
J-13	12-17-91	1207	40	13	1.8	42	4.8	100	130	--	22	7.8	2.3	0.05	64	241	230
J-12	12-18-91	1540	47	15	2.2	39	5.1	94	120	--	23	8.3	.8	<.01	65	--	224
JF-3	03-04-92	1800	58	18	3.2	40	8.7	100	120	--	32	13	1.6	.05	56	238	242
	03-05-92	0520	58	18	3.2	40	7.6	100	120	--	31	8.2	1.6	.06	56	230	234
	03-05-92	1735	55	17	3.0	38	8.7	100	120	--	31	8.2	1.6	.05	56	220	235
	03-05-92	1736	58	18	3.1	38	8.9	100	120	--	30	10	1.6	.06	56	235	236
MV-1	12-18-91	1015	200	46	21	41	5.7	210	250	--	--	17	.7	.05	23	--	--
AD-2	03-24-92	1640	15	5.6	.23	70	1.5	100	110	7	46	10	1.8	--	40	222	242
AD-2a	09-03-91	1530	46	17	.83	110	4.0	130	160	--	110	15	1.9	--	46	374	390
	04-27-92	1415	43	16	.80	97	3.8	130	160	--	110	16	2.0	--	41	381	373
AD-4a	08-25-90	1700	180	44	16	120	11	220	270	--	150	27	3.8	--	28	537	535
AD-8	08-24-90	1530	350	76	39	300	9.5	290	350	--	500	130	1.7	--	26	1,260	1,260
	09-05-91	2000	370	80	42	300	9.6	280	340	--	540	130	1.9	--	26	1,270	1,300
	03-24-92	0950	340	76	37	270	9.9	280	340	--	480	130	1.6	--	25	1,220	1,200
AD-9a	04-29-92	1000	57	19	2.2	41	8.4	110	130	--	33	9.2	1.7	--	72	252	257
AM-1a	08-21-90	1450	200	48	20	69	7.9	260	320	--	79	21	1.6	--	23	394	424
	08-26-91	1900	200	47	21	68	8.0	250 L	--	--	82	23	1.6	--	22	407	426
	08-18-92	0948	200	47	20	69	7.4	240	300	--	85	26	1.7	--	21	406	424
AM-2	08-24-90	1145	190	45	19	66	8.3	250	300	--	77	21	1.5	--	23	--	409
	04-28-92	1020	200	49	20	67	8.0	250	310	--	85	26	1.7	--	21	408	429
	08-18-92	1600	210	48	21	69	7.3	250	300	--	85	25	1.6	--	21	403	427

Table 7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Hardness (mg/L as Ca CO_3)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate, (mg/L as HCO_3)	Carbonate, (mg/L as CO_3)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Bromide, dissolved (mg/L as Br)	Silica, dissolved (mg/L as SiO_2)	Solids, dissolved, residue at 180 °C (mg/L)	Solids, dissolved, sum of constituents (mg/L)
AM-3	08-27-90	1115	440	72	64	150	26	430	530	--	230	97	3.2	--	62	976	964
	08-31-91	1030	640	73	110	880	94	470	570	--	1,400	500	3.0	--	60	3,370	3,400
AM-4	08-22-90	1200	210	50	20	68	7.8	230	280	--	87	24	1.6	--	23	411	419
	08-27-91	1430	210	49	21	69	7.9	250	300	--	83	24	1.6	--	23	408	427
	08-19-92	0942	210	51	21	69	7.4	250	310	--	82	25	1.5	--	23	406	433
AM-5a	08-25-90	1000	200	47	20	75	9.0	250	310	--	81	23	1.5	--	27	418	435
	09-05-91	1430	200	48	20	69	9.1	240	300	--	89	22	1.8	--	27	412	431
AM-8	08-22-90	1730	180	44	18	96	9.2	260	320	--	120	28	1.6	--	29	473	502
	08-27-91	0900	190	43	19	100	8.8	260	320	--	110	27	1.5	--	28	469	494
	08-19-92	1540	180	43	18	93	8.6	260	320	--	110	31	1.4	--	29	480	493
DV-1	08-23-90	1630	160	34	18	150	12	280	340	--	150	36	3.4	--	32	604	603
	08-28-91	0845	160	34	18	140	11	260	320	--	160	39	3.9	--	31	589	596
DV-2	08-23-90	1130	67	13	8.3	170	8.4	200	230	7	110	75	1.5	--	19	546	553
	08-28-91	1300	68	14	8.1	160	8.3	200	240	--	130	75	1.7	--	18	563	564

Table 7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Arsenic dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Iron, dissolved (µg/L as Fe)	Lead, dissolved (µg/L as Pb)	Lithium, dissolved (µg/L as Li)	Manganese, dissolved (µg/L as Mn)	Mercury, dissolved (µg/L as Hg)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Zinc, dissolved (µg/L as Zn)
CF-1	09-04-91	1015	14	19	<10	<1	<10	14	<100	--	8	<0.1	<1	<1	8
	03-25-92	1025	14	18	<10	<1	<10	15	<100	--	10	<.1	<1	<1	8
CF-2a	09-04-91	1545	9	52	<10	<1	<10	11	<100	--	13	<.1	<1	<1	80
	03-26-92	1005	9	50	<10	<1	<10	24	<100	--	10	<.1	<1	<1	18
J-13	12-17-91	1207	11	<2	<10	<1	<10	9	<100	38	3	<.1	<1	<1	16
J-12	12-18-91	1540	11	<2	<10	<1	<10	8	<100	37	<1	<.1	<1	<1	10
JF-3	03-04-92	1800	9	2	<10	<1	<10	66	<100	37	3	<.1	1	<1	5
	03-05-92	0520	9	<2	<10	<1	<10	43	<100	38	2	<.1	<1	<1	<3
	03-05-92	1735	9	<2	<10	1	<10	24	<100	36	1	<.1	<1	<1	<3
	03-05-92	1736	9	<2	<10	<1	<10	24	<100	38	2	<.1	4	<1	<3
MV-1	12-18-91	1015	11	83	<10	<1	<10	7	<100	45	<1	<.1	<1	<1	3
AD-2	03-24-92	1640	25	<2	<10	5	<10	18	<100	--	<1	.3	<1	<1	8
AD-2a	09-03-91	1530	22	9	<10	6	<10	7	<100	--	<1	<.1	2	<1	17
	04-27-92	1415	21	9	<10	7	<10	4	<100	--	<1	<.1	<1	<1	100
AD-4a	08-25-90	1700	35	38	<10	<1	<10	6	<100	--	<1	<.1	<1	<1	82
AD-8	08-24-90	1530	21	40	<10	2	<10	6	<100	--	<1	<.1	28	<1	13
	09-05-91	2000	16	36	<10	<1	<10	9	<100	--	<1	<.1	29	<1	15
	03-24-92	0950	17	33	<10	<1	<10	17	<100	--	<1	<.1	19	<1	9
AD-9a	04-29-92	1000	11	2	<10	3	<10	<3	<100	--	<1	<.1	<1	<1	9
AM-1a	08-21-90	1450	11	60	<10	1	<10	11	<100	--	<1	<.1	<1	2	<3
	08-26-91	1900	10	57	<10	<1	<10	<3	<100	--	<1	<.1	<1	<1	4
	08-18-92	0948	12	56	<10	<1	<10	5	<100	--	<1	<.1	<1	<1	<3
AM-2	08-24-90	1145	14	63	<10	<1	<10	13	<100	--	<1	<.1	<1	<1	7
	04-28-92	1020	14	64	<10	<1	<10	10	<100	--	1	<.1	<1	<1	8
	08-18-92	1600	15	63	<10	<1	<10	3	<100	--	<1	<.1	<1	<1	<3

Table 7. Selected water-quality properties, total coliform bacteria, major inorganic chemical constituents, and trace elements in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Arsenic dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Iron, dissolved (µg/L as Fe)	Lead, dissolved (µg/L as Pb)	Lithium, dissolved (µg/L as Li)	Manganese, dissolved (µg/L as Mn)	Mercury, dissolved (µg/L as Hg)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Zinc, dissolved (µg/L as Zn)
AM-3	08-27-90	1115	53	76	<10	<1	<10	860	<100	--	34	<.1	<1	<1	4
	08-31-91	1030	32	<100	10	<1	10	520	<100	--	40	.1	<1	<1	<10
AM-4	08-22-90	1200	14	83	<10	2	<10	8	<100	--	<1	<.1	<1	3	<3
	08-27-91	1430	12	81	<10	<1	<10	<3	<100	--	<1	.2	<1	<1	3
	08-19-92	0942	14	78	<10	<1	<10	6	<100	--	<1	<.1	<1	<1	4
AM-5a	08-25-90	1000	17	67	<10	<1	<10	16	<100	--	<1	<.1	<1	<1	8
	09-05-91	1430	15	66	<10	<1	<10	<3	<100	--	<1	<.1	<1	<1	<3
AM-8	08-22-90	1730	3	48	<10	2	<10	6	<100	--	<1	<.1	<1	3	4
	08-27-91	0900	29	47	<10	<1	<10	<3	<100	--	<1	<.1	<1	<1	4
	08-19-92	1540	27	43	<10	<1	<10	<3	<100	--	<1	<.1	<1	<1	<3
DV-1	08-23-90	1630	24	37	<10	1	<10	5	<100	--	<1	<.1	<1	<1	<3
	08-28-91	0845	24	35	<10	<1	<10	<3	<100	--	<1	<.1	<1	<1	<3
DV-2	08-23-90	1130	200	33	<10	4	<10	18	<100	--	<1	<.1	<1	<1	8
	08-28-91	1300	180	31	<10	3	<10	26	<100	--	<1	<.1	<1	<1	15

Table 8. Dissolved nitrogen and phosphorus species and total organic carbon in water samples, 1990 through 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
[Nitrate calculated by subtracting nitrite from NO_2+NO_3. Abbreviations and symbols: mg/L, milligrams per liter; --, not determined; <, less than]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Nitrogen, nitrate, dissolved (mg/L as N)	Nitrogen, nitrite, dissolved (mg/L as N)	Nitrogen, NO_2+NO_3, dissolved (mg/L as N)	Nitrogen, ammonia, dissolved (mg/L as N)	Nitrogen, ammonia +organic, dissolved (mg/L as N)	Orthophos-phorus, dissolved (mg/L as P)	Phosphorus, dissolved (mg/L as P)	Carbon, organic, total (mg/L as C)
CF-1	365520116370301	Gexa Well 4	09-04-91	1015	--	<0.01	0.45	<0.01	<0.2	<0.01	0.02	<0.1
			03-25-92	1025	--	<.01	.36	<.01	<.2	.01	<.01	.2
CF-2a	365821116343701	USW VH-2	09-04-91	1545	--	<.01	.32	<.01	<.2	<.01	<.01	<.1
			03-26-92	1005	--	<.01	.35	.01	<.2	.04	<.01	<.1
J-13	364828116234001	J-13 WW	12-17-91	1207	2.1	<.01	2.1	<.01	<.2	.05	.02	.2
J-12	364554116232401	J-12 WW	12-18-91	1540	2.0	<.01	2.0	<.01	<.2	.04	.02	.3
JF-3	364528116232201	JF-3	03-04-92	1800	1.9	.02	1.9	.03	<.2	.01	.01	.4
			03-05-92	0520	1.9	.01	1.9	.02	<.2	.01	.01	.3
			03-05-92	1735	2.3	.01	2.3	.01	<.2	.01	.02	.3
			03-05-92	1736	2.0	<.01	2.0	.01	<.2	.01	<.01	.7
MV-1	363530116021401	Army 1 WW	12-18-91	1015	--	<.01	.34	<.01	<.2	.02	<.01	.1
AD-2	363830116241401	Airport Well	03-24-92	1640	1.4	<.01	1.4	.01	<.2	<.01	<.01	<.1
AD-2a	363835116234001	NDOT Well	09-03-91	1530	2.1	<.01	2.1	<.01	<.2	<.01	<.01	<.1
			04-27-92	1415	2.0	<.01	2.2	.03	<.2	<.01	<.01	<.1
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	--	<.01	.10	--	--	--	--	<.1
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	--	<.01	.80	--	--	--	--	.4
			09-05-91	2000	--	<.01	.56	<.01	<.2	<.01	<.01	.4
			03-24-92	0950	--	<.01	.48	<.01	<.2	<.01	<.01	.2
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	1.6	<.01	1.6	.02	<.2	<.01	<.01	<.1
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	--	<.01	<.10	--	--	--	--	.1
			08-26-91	1900	--	<.01	<.05	<.01	.5	<.01	<.01	.1
			08-18-92	0948	--	<.01	<.05	<.01	<.2	<.01	<.01	.1
AM-2	362755116190401	Five Springs Well	08-24-90	1145	--	<.01	<.10	--	--	--	--	.1
			04-28-92	1020	--	<.01	<.05	.03	<.2	<.01	<.01	.5
			08-18-92	1600	--	<.01	.05	<.01	<.2	<.01	<.01	.6

Table 8. Dissolved nitrogen and phosphorus species and total organic carbon in water samples, 1990 through 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Nitrogen, nitrate, dissolved (mg/L as N)	Nitrogen, nitrite, dissolved (mg/L as N)	Nitrogen, NO_2+NO_3, dissolved (mg/L as N)	Nitrogen, ammonia, dissolved (mg/L as N)	Nitrogen, ammonia +organic, dissolved (mg/L as N)	Orthophos-phorus, dissolved (mg/L as P)	Phosphorus, dissolved (mg/L as P)	Carbon, organic, total (mg/L as C)
AM-3	362555116205301	Garners Well	08-27-90	1115	--	<0.01	<0.10	--	--	--	--	1.2
			08-31-91	1030	--	<.01	<.05	0.03	<0.2	<0.01	<0.01	1.5
AM-4	362532116172700	Devils Hole	08-22-90	1200	--	<.01	.10	--	--	--	--	.2
			08-27-91	1430	--	<.01	.14	<.01	.3	<.01	<.01	.1
			08-19-92	0942	--	<.01	.16	.01	<.2	.01	<.01	.2
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	--	<.01	<.10	--	--	--	--	.1
			09-05-91	1430	--	<.01	.10	<.01	<.2	<.01	<.01	.2
AM-8	362230116162001	Big Spring	08-22-90	1730	--	<.01	.10	--	--	--	--	.1
			08-27-91	0900	--	<.01	.12	<.01	.2	<.01	<.01	.5
			08-19-92	1540	--	<.01	.24	.01	<.2	.01	<.01	.4
DV-1	362728116501101	Texas Spring	08-23-90	1630	--	<.01	.20	--	--	--	--	<.1
			08-28-91	0845	--	<.01	.15	.02	<.2	<.01	.02	.1
DV-2	362252116425301	Navel Spring	08-23-90	1130	6.4	<.01	6.4	--	--	--	--	.6
			08-28-91	1300	6.4	<.01	6.4	.01	.5	.02	<.01	.9

Table 9. Radiochemical constituents and stable isotopes in water samples, 1990 through 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
Gross alpha: Gross alpha values in pCi/L are calculated by multiplying corresponding µg/L values by 0.68, assuming that isotopic composition is same as natural uranium.
[Included in this table are deuterium (hydrogen-2) relative to hydrogen-1 ($D/^{1}H$) and oxygen-18 relative to oxygen-16 ($^{18}O/^{16}O$). Each ratio is determined for a water sample and then related mathematically to comparable ratio for following international reference standard: Vienna Standard Mean Ocean Water for hydrogen and oxygen. By convention, computed results are expressed as "delta deuterium," and "delta oxygen-18." A negative delta value indicates that water sample is isotopically lighter than standard (for example, water sample has smaller proportion of deuterium, relative to hydrogen-1, compared to standard). Abbreviations and symbols: µg/L, micrograms per liter; pCi/L, picocuries per liter; Cs-137, cesium-137; Sr-90/Y-90, strontium-90/yttrium-90; permil, parts per thousand; --, not determined; <, less than]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Gross alpha, dissolved (µg/L as U, natural)	Gross alpha, dissolved (pCi/L)	Gross beta, dissolved (pCi/L as Cs-137)	Gross beta, dissolved (pCi/L as Sr-90/Y-90)	Radon-222, total (pCi/L)	Radium-226, dissolved, radon method (pCi/L)	Uranium, natural, dissolved (µg/L as U)	Radium-228, dissolved (pCi/L as Ra-228)	Delta deuterium (permil)	Delta oxygen-18 (permil)
CF-1	365520116370301	Gexa Well 4	09-04-91	1015	9.0	6.1	14	10	--	0.25	4.7	<1.0	--	--
			03-25-92	1025	8.2	5.6	5.0	3.6	620	.23	3.9	1.0	--	--
CF-2a	365821116343701	USW VH-2	09-04-91	1545	12	8.2	14	10	240	.37	6.9	<1.0	--	--
			03-26-92	1005	13	8.8	12	8.9	370	.45	6.8	1.7	--	--
J-13	364828116234001	J-13 WW	12-17-91	1207	1.8	1.2	3.6	2.8	300	.03	1.3	<1.0	-96.5	-13.00
J-12	364554116232401	J-12 WW	12-18-91	1540	1.7	1.2	4.5	3.4	330	.02	1.0	<1.0	-96	-12.95
JF-3	364528116232201	JF-3	03-04-92	1800	1.5	1.0	8.4	6.2	310	.04	1.3	<1.0	-97	-13.15
			03-05-92	0520	2.7	1.8	9.2	6.8	410	.03	<1.0	<1.0	-97.5	-13.15
			03-05-92	1735	2.2	1.5	7.7	5.7	420	.03	<1.0	<1.0	-98	-13.20
			03-05-92	1736	1.5	1.0	8.5	6.2	320	.04	<1.0	<1.0	-97	-13.20
MV-1	363530116021401	Army 1 WW	12-18-91	1015	6.1	4.1	6.8	5.1	210	.34	3.3	<1.0	-101	-13.55
AD-2	363830116241401	Airport Well	03-24-92	1640	1.0	.7	1.7	1.2	610	<.02	<1.0	1.2	--	--
AD-2a	363835116234001	NDOT Well	09-03-91	1530	3.2	2.2	5.9	4.5	510	.02	3.5	<1.0	--	--
			04-27-92	1415	3.9	2.7	5.5	4.1	620	.02	2.2	<1.0	--	--
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	4.4	3.0	14	11	120	--	--	<1.0	--	--
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	33	22	23	18	500	--	--	<1.0	--	--
			09-05-91	2000	--	--	23	17	570	.07	12	<1.0	--	--
			03-24-92	0950	29	20	24	18	570	.06	21	<1.0	--	--
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	1.1	.7	7.8	5.7	700	.03	1.5	<1.0	--	--
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	6.5	4.4	9.1	6.9	250	--	--	<1.0	--	--
			08-26-91	1900	4.5	3.1	12	9.1	300	.38	3.3	<1.0	--	--
			08-18-92	0948	4.0	2.7	12	8.8	300	.35	3.1	<1.0	--	--
AM-2	362755116190401	Five Springs Well	08-24-90	1145	11	7.5	10	7.8	300	--	--	<1.0	--	--
			04-28-92	1020	6.8	4.6	11	8.1	230	.59	2.4	<1.0	--	--
			08-18-92	1600	5.4	3.7	11	8.3	510	.76	3.7	<1.0	--	--

Table 9. Radiochemical constituents and stable isotopes in water samples, 1990 through 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Gross alpha, dissolved (µg/L as U, natural)	Gross alpha, dissolved (pCi/L)	Gross beta, dissolved (pCi/L as Cs-137)	Gross beta, dissolved (pCi/L as Sr-90/Y-90)	Radon-222, total (pCi/L)	Radium-226, dissolved, radon method (pCi/L)	Uranium, natural, dissolved (µg/L as U)	Radium-228, dissolved (pCi/L as Ra-228)	Delta deuterium (permil)	Delta oxygen-18 (permil)
AM-3	362555116205301	Garners Well	08-27-90	1115	13	8.8	35	26	240	--	--	<1.0	--	--
			08-31-91	1030	27	18	150	110	290	0.10	16	<1.0	--	--
AM-4	362532116172700	Devils Hole	08-22-90	1200	11	7.5	9.1	6.9	<80	--	--	<1.0	--	--
			08-27-91	1430	7.9	5.4	13	9.6	<80	.82	3.5	<1.0	--	--
			08-19-92	0942	6.3	4.3	12	8.9	<80	.81	3.8	<1.0	--	--
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	9.3	6.3	12	9.0	440	--	--	<1.0	--	--
			09-05-91	1430	5.3	3.6	12	9.1	500	.50	3.8	<1.0	--	--
AM-8	362230116162001	Big Spring	08-22-90	1730	7.2	4.9	10	7.8	360	--	--	<1.0	--	--
			08-27-91	0900	5.1	3.5	14	10	250	.15	4.4	<1.0	--	--
			08-19-92	1540	3.0	2.0	14	10	320	.20	2.4	<1.0	--	--
DV-1	362728116501101	Texas Spring	08-23-90	1630	4.7	3.2	15	11	--	--	--	<1.0	--	--
			08-28-91	0845	4.1	2.8	17	12	190	.08	5.1	<1.0	--	--
DV-2	362252116425301	Navel Spring	08-23-90	1130	4.0	2.7	14	11	<80	--	--	<1.0	--	--
			08-28-91	1300	2.7	1.8	12	8.7	<80	.07	2.4	<1.0	--	--

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey
[Abbreviations and symbols: wh. wat., whole water; w.w.rec., whole water recoverable; µg/L, micrograms per liter; --, not determined; <, less than]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Acrolein, total (µg/L)	Acylonitrile, total (µg/L)	Benzene, total (µg/L)	Bromobenzene, wh. wat., total (µg/L)	Bromoform, total (µg/L)	Bromomethane, total (µg/L)	n-Butylbenzene, w.w. rec. (µg/L)	sec-Butylbenzene, w.w. rec. (µg/L)	tert-Butylbenzene, w.w. rec. (µg/L)
CF-1	365520116370301	Gexa Well 4	03-25-92	1025	<20	<20	<0.2	<0.2	<0.2	<0.2	--	--	--
CF-2a	365821116343701	USW VH-2	09-04-91	1545	--	--	<.2	--	<.2	<.2	--	--	--
			03-26-92	1005	<20	<20	<.2	<.2	<.2	<.2	--	--	--
J-13	364828116234001	J-13 WW	12-17-91	1207	--	--	<.2	--	<.2	<.2	--	--	--
J-12	364554116232401	J-12 WW	12-18-91	1540	--	--	<.2	--	<.2	<.2	--	--	--
JF-3	364528116232201	JF-3	03-04-92	1800	--	--	<.2	--	<.2	<.2	--	--	--
			03-05-92	0520	--	--	<.2	--	<.2	<.2	--	--	--
			03-05-92	1735	--	--	<.2	--	<.2	<.2	--	--	--
			03-05-92	1736	--	--	<.2	--	<.2	<.2	--	--	--
MV-1	363530116021401	Army 1 WW	12-18-91	1015	--	--	<.2	--	<.2	<.2	--	--	--
AD-2	363830116241401	Airport Well	03-24-92	1640	<20	<20	<.2	<.2	<.2	<.2	--	--	--
AD-2a	363835116234001	NDOT Well	09-03-91	1530	--	--	<.2	--	<.2	<.2	--	--	--
			04-27-92	1415	<20	<20	<.2	<.2	<.2	<.2	<0.2	<0.2	<0.2
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	--	--	<3.0	--	<3.0	<3.0	--	--	--
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	--	--	<3.0	--	<3.0	<3.0	--	--	--
			09-05-91	2000	--	--	<.2	--	<.2	<.2	--	--	--
			03-24-92	0950	<20	<20	<.2	<.2	<.2	<.2	--	--	--
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	<20	<20	<.2	<.2	<.2	<.2	<.2	<.2	<.2
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	--	--	<3.0	--	<3.0	<3.0	--	--	--
			08-26-91	1900	--	--	<.2	--	<.2	<.2	--	--	--
			08-18-92	0948	<20	<20	<.2	<.2	<.2	<.2	<.2	<.2	<.2
AM-2	362755116190401	Five Springs Well	08-24-90	1145	--	--	<3.0	--	<3.0	<3.0	--	--	--
			04-28-92	1020	<20	<20	<.2	<.2	<.2	<.2	<.2	<.2	<.2
			08-18-92	1600	<20	<20	<.2	<.2	<.2	<.2	<.2	<.2	<.2
AM-3	362555116205301	Garners Well	08-27-90	1115	--	--	<3.0	--	<3.0	<3.0	--	--	--
			08-31-91	1030	--	--	<.2	--	<.2	<.2	--	--	--
AM-4	362532116172700	Devils Hole	08-22-90	1200	--	--	<3.0	--	<3.0	<3.0	--	--	--
			08-27-91	1430	--	--	.2	--	<.2	<.2	--	--	--
			08-19-92	0942	<20	<20	<.2	<.2	<.2	<.2	<.2	<.2	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Acro-lein, total (µg/L)	Acylo-nitrile, total (µg/L)	Benzene, total (µg/L)	Bromo-benzene, wh. wat., total (µg/L)	Bromo-form, total (µg/L)	Bromo-methane, total (µg/L)	n-Butyl-benzene, w.w. rec. (µg/L)	sec-Butyl-benzene, w.w. rec. (µg/L)	tert-Butyl-benzene, w.w. rec. (µg/L)
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	--	--	<3.0	--	<3.0	<3.0	--	--	--
			09-05-91	1430	--	--	<.2	--	<.2	<.2	--	--	--
AM-8	362230116162001	Big Spring	08-22-90	1730	--	--	<3.0	--	<3.0	<3.0	--	--	--
			08-27-91	0900	--	--	<.2	--	<.2	<.2	--	--	--
			08-19-92	1540	<20	<20	<.2	<0.2	<.2	<.2	<0.2	<0.2	<0.2
DV-1	362728116501101	Texas Spring	08-23-90	1630	--	--	<3.0	--	<3.0	<3.0	--	--	--
			08-28-91	0845	--	--	<.2	--	<.2	<.2	--	--	--
DV-2	362252116425301	Navel Spring	08-23-90	1130	--	--	<3.0	--	<3.0	<3.0	--	--	--
			08-28-91	1300	--	--	<.2	--	<.2	<.2	--	--	--

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Carbon tetra-chlo-ride, total (µg/L)	Chloro-di-bromo-methane, total (µg/L)	Chloro-ethane, total (µg/L)	2-Chlor-ethyl-vinyl-ether, total (µg/L)	Chloro-form, total (µg/L)	Chloro-methane, total (µg/L)	o-Chloro-toluene, wh. wat., total (µg/L)	p-Chloro-toluene, wh. wat., total (µg/L)	p-Cymene, w.w.rec. (µg/L)	Dibromo-chloro-propane, w.w.rec. (µg/L)	Di-bromo-methane, wh. wat., total (µg/L)
CF-1	03-25-92	1025	<0.2	<0.2	<0.2	<1.0	<0.2	<0.2	<0.2	<0.2	--	<1.0	<0.2
CF-2a	09-04-91	1545	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	03-26-92	1005	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	--	<1.0	<.2
J-13	12-17-91	1207	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
J-12	12-18-91	1540	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
JF-3	03-04-92	1800	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	03-05-92	0520	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	03-05-92	1735	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	03-05-92	1736	<.2	<.2	<.2	<.2	<.2	<.2	--	--		--	--
MV-1	12-18-91	1015	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
AD-2	03-24-92	1640	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	--	<1.0	<.2
AD-2a	09-03-91	1530	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	04-27-92	1415	<.2	<.2	<.2	<1.0	0.3	<.2	<.2	<.2	<0.2	<1.0	<.2
AD-4a	08-25-90	1700	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
AD-8	08-24-90	1530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	09-05-91	2000	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	03-24-92	0950	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	--	<1.0	<.2
AD-9a	04-29-92	1000	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	<.2	<1.0	<.2
AM-1a	08-21-90	1450	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	08-26-91	1900	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	08-18-92	0948	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	<.2	<1.0	<.2
AM-2	08-24-90	1145	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	04-28-92	1020	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	<.2	<1.0	<.2
	08-18-92	1600	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	<.2	<1.0	<.2
AM-3	08-27-90	1115	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	08-31-91	1030	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
AM-4	08-22-90	1200	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	08-27-91	1430	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	08-19-92	0942	<.2	<.2	<.2	<1.0	<.2	<.2	<.2	<.2	<.2	<1.0	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Carbon tetra-chlo-ride, total (µg/L)	Chloro-di-bromo-methane, total (µg/L)	Chloro-ethane, total (µg/L)	2-Chlor-ethyl-vinyl-ether, total (µg/L)	Chloro-form, total (µg/L)	Chloro-methane, total (µg/L)	o-Chloro-toluene, wh. wat., total (µg/L)	p-Chloro-toluene, wh. wat., total (µg/L)	p-Cymene, w.w.rec. (µg/L)	Dibromo-chloro-propane, w.w.rec. (µg/L)	Di-bromo-methane, wh. wat., total (µg/L)
AM-5a	08-25-90	1000	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	09-05-91	1430	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
AM-8	08-22-90	1730	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	08-27-91	0900	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
	08-19-92	1540	<.2	<.2	<.2	<1.0	<.2	<.2	<0.2	<0.2	<0.2	<1.0	<0.2
DV-1	08-23-90	1630	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	08-28-91	0845	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--
DV-2	08-23-90	1130	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--	--	--	--
	08-28-91	1300	<.2	<.2	<.2	<.2	<.2	<.2	--	--	--	--	--

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Di-chloro-bromo-methane, total (µg/L)	Di-chloro-di-fluoro-methane, total (µg/L)	1,1-Di-chloro-ethane, total (µg/L)	1,2-Di-chloro-ethane, total (µg/L)	1,1,-Di-chloro-ethyl-ene, total (µg/L)	trans-1,2-Dichloro-ethylene, total (µg/L)	Di-chloro-methane, total (µg/L)	1,2-Di-chloro-propane, total (µg/L)	1,3-Di-chloro-propane, wh.wat., total (µg/L)	1,3-Di-chloro-propene, total (µg/L)	cis-1,3-Di-chloro-propene, total (µg/L)
CF-1	03-25-92	1025	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2
CF-2a	09-04-91	1545	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<0.2	<.2
	03-26-92	1005	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
J-13	12-17-91	1207	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
J-12	12-18-91	1540	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
JF-3	03-04-92	1800	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	03-05-92	0520	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	03-05-92	1735	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	03-05-92	1736	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
MV-1	12-18-91	1015	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
AD-2	03-24-92	1640	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
AD-2a	09-03-91	1530	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	04-27-92	1415	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
AD-4a	08-25-90	1700	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
AD-8	08-24-90	1530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	09-05-91	2000	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	03-24-92	0950	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
AD-9a	04-29-92	1000	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
AM-1a	08-21-90	1450	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	08-26-91	1900	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	08-18-92	0948	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
AM-2	08-24-90	1145	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	04-28-92	1020	<.2	<.2	<.2	<.2	<.2	<.2	<.3	<.2	<.2	--	<.2
	08-18-92	1600	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2
AM-3	08-27-90	1115	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	08-31-91	1030	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
AM-4	08-22-90	1200	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	08-27-91	1430	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	08-19-92	0942	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Di-chloro-bromo-methane, total (µg/L)	Di-chloro-di-fluoro-methane, total (µg/L)	1,1-Di-chloro-ethane, total (µg/L)	1,2-Di-chloro-ethane, total (µg/L)	1,1,-Di-chloro-ethyl-ene, total (µg/L)	trans-1,2-Dichloro-ethylene, total (µg/L)	Di-chloro-methane, total (µg/L)	1,2-Di-chloro-propane, total (µg/L)	1,3-Di-chloro-propane, wh.wat., total (µg/L)	1,3-Di-chloro-propene, total (µg/L)	cis-1,3-Di-chloro-propene, total (µg/L)
AM-5a	08-25-90	1000	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	09-05-91	1430	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
AM-8	08-22-90	1730	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	08-27-91	0900	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
	08-19-92	1540	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<0.2	--	<.2
DV-1	08-23-90	1630	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	08-28-91	0845	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2
DV-2	08-23-90	1130	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	<3.0
	08-28-91	1300	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	--	<.2	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	trans-1,3-Dichloropropene, total (µg/L)	Ethyl benzene, total (µg/L)	Ethylene dibromide, total (µg/L)	Isopropylbenzene, total (µg/L)	Monochlorobenzene, total (µg/L)	n-Propylbenzene, w.w.rec. (µg/L)	Styrene, total (µg/L)	1,1,1,2-Tetrachloroethane, wh.wat., total (µg/L)	1,1,2,2-Tetrachloroethane, total (µg/L)	Tetrachloroethylene, total (µg/L)	Toluene, total (µg/L)
CF-1	03-25-92	1025	<0.2	<0.2	<0.2	--	<0.2	--	<0.2	<0.2	<0.2	<0.2	<0.2
CF-2a	09-04-91	1545	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	03-26-92	1005	<.2	<.2	<.2	--	<.2	--	<.2	<.2	<.2	<.2	<.2
J-13	12-17-91	1207	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
J-12	12-18-91	1540	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
JF-3	03-04-92	1800	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	03-05-92	0520	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	03-05-92	1735	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	03-05-92	1736	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
MV-1	12-18-91	1015	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
AD-2	03-24-92	1640	<.2	<.2	<.2	--	<.2	--	<.2	<.2	<.2	<.2	<.2
AD-2a	09-03-91	1530	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	04-27-92	1415	<.2	<.2	<.2	<0.2	<.2	<0.2	<.2	<.2	<.2	<.2	<.2
AD-4a	08-25-90	1700	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
AD-8	08-24-90	1530	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	09-05-91	2000	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	03-24-92	0950	<.2	<.2	<.2	--	<.2	--	<.2	<.2	<.2	<.2	<.2
AD-9a	04-29-92	1000	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
AM-1a	08-21-90	1450	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	08-26-91	1900	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	08-18-92	0948	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
AM-2	08-24-90	1145	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	04-28-92	1020	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
	08-18-92	1600	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
AM-3	08-27-90	1115	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	08-31-91	1030	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
AM-4	08-22-90	1200	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	08-27-91	1430	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	0.3
	08-19-92	0942	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	trans-1,3-Dichloropropene, total (µg/L)	Ethyl benzene, total (µg/L)	Ethylene dibromide, total (µg/L)	Isopropylbenzene, total (µg/L)	Monochlorobenzene, total (µg/L)	n-Propylbenzene, w.w.rec. (µg/L)	Styrene, total (µg/L)	1,1,1,2-Tetrachloroethane, wh.wat., total (µg/L)	1,1,2,2-Tetrachloroethane, total (µg/L)	Tetrachloroethylene, total (µg/L)	Toluene, total (µg/L)
AM-5a	08-25-90	1000	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	09-05-91	1430	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
AM-8	08-22-90	1730	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	08-27-91	0900	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
	08-19-92	1540	<.2	<.2	<.2	<0.2	<.2	<0.2	<.2	<0.2	<.2	<.2	<.2
DV-1	08-23-90	1630	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	08-28-91	0845	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2
DV-2	08-23-90	1130	<3.0	<3.0	<3.0	--	<3.0	--	<3.0	--	<3.0	<3.0	<3.0
	08-28-91	1300	<.2	<.2	<.2	--	<.2	--	<.2	--	<.2	<.2	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	1,2,3-Trichlorobenzene, w.w.rec. (µg/L)	1,1,1-Trichloroethane, total (µg/L)	1,1,2-Trichloroethane, total (µg/L)	Trichloroethylene, total (µg/L)	Trichlorofluoromethane, total (µg/L)	1,2,3-Trichloropropane, wh.wat., total (µg/L)	1,1,2-Trichloro-1,2,2-trifluoroethane, total (µg/L)	1,2,4-Trimethylbenzene, w.w.rec. (µg/L)	1,3,5-Trimethylbenzene, w.w.rec. (µg/L)	Vinyl chloride, total (µg/L)	Xylene, wh. wat., total (µg/L)
CF-1	03-25-92	1025	--	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	--	<0.2	<0.2
CF-2a	09-04-91	1545	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	03-26-92	1005	--	<.2	<.2	<.2	<.2	<.2	--	--	--	<.2	<.2
J-13	12-17-91	1207	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
J-12	12-18-91	1540	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
JF-3	03-04-92	1800	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	03-05-92	0520	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	03-05-92	1735	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	03-05-92	1736	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
MV-1	12-18-91	1015	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
AD-2	03-24-92	1640	--	<.2	<.2	<.2	<.2	<.2	--	--	--	<.2	<.2
AD-2a	09-03-91	1530	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	04-27-92	1415	<0.2	<.2	<.2	<.2	<.2	<.2	<0.5	<0.2	<0.2	<.2	<.2
AD-4a	08-25-90	1700	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
AD-8	08-24-90	1530	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	09-05-91	2000	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	03-24-92	0950	--	<.2	<.2	<.2	<.2	<.2	--	--	--	<.2	<.2
AD-9a	04-29-92	1000	<.2	<.2	<.2	<.2	<.2	<.2	<.5	<.2	<.2	<.2	<.2
AM-1a	08-21-90	1450	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	08-26-91	1900	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	08-18-92	0948	<.2	<.2	<.2	<.2	<.2	<.2	<.5	<.2	<.2	<.2	<.2
AM-2	08-24-90	1145	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	04-28-92	1020	<.2	<.2	<.2	<.2	<.2	<.2	<.5	<.2	<.2	<.2	<.2
	08-18-92	1600	<.2	<.2	<.2	<.2	<.2	<.2	<.5	<.2	<.2	<.2	<.2
AM-3	08-27-90	1115	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	08-31-91	1030	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
AM-4	08-22-90	1200	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	08-27-91	1430	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	08-19-92	0942	<.2	<.2	<.2	<.2	<.2	<.2	<.5	<.2	<.2	<.2	<.2

Table 10. Volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	1,2,3-Trichlorobenzene, w.w.rec. (µg/L)	1,1,1-Trichloroethane, total (µg/L)	1,1,2-Trichloroethane, total (µg/L)	Trichloroethylene, total (µg/L)	Trichlorofluoromethane, total (µg/L)	1,2,3-Trichloropropane, wh.wat., total (µg/L)	1,1,2-Trichloro-1,2,2-trifluoroethane, total (µg/L)	1,2,4-Trimethylbenzene, w.w.rec. (µg/L)	1,3,5-Trimethylbenzene, w.w.rec. (µg/L)	Vinyl chloride, total (µg/L)	Xylene, wh. wat., total (µg/L)
AM-5a	08-25-90	1000	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	09-05-91	1430	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
AM-8	08-22-90	1730	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	08-27-91	0900	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
	08-19-92	1540	<0.2	<.2	<.2	<.2	<.2	<0.2	<0.5	<0.2	<0.2	<.2	<.2
DV-1	08-23-90	1630	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	08-28-91	0845	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2
DV-2	08-23-90	1130	--	<3.0	<3.0	<3.0	<3.0	--	--	--	--	<1.0	<3.0
	08-28-91	1300	--	<.2	<.2	<.2	<.2	--	--	--	--	<.2	<.2

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
[Abbreviations and symbols: µg/L, micrograms per liter; --, not determined; <, less than]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Acenaphthene, total (µg/L)	Acenaphthylene, total (µg/L)	Anthracene, total (µg/L)	Benzidine, total (µg/L)	Benzo(a)anthracene, total (µg/L)	Benzo(b)fluoranthene, total (µg/L)	Benzo(k)fluoranthene, total (µg/L)	Benzo(g,h,i)perylene, total (µg/L)	Benzo(a)pyrene, total (µg/L)
CF-1	365520116370301	Gexa Well 4	09-04-91	1015	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			03-25-92	1025	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
CF-2a	365821116343701	USW VH-2	09-04-91	1545	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			03-26-92	1005	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
J-13	364828116234001	J-13 WW	12-17-91	1207	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
J-12	364554116232401	J-12 WW	12-18-91	1540	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
JF-3	364528116232201	JF-3	03-04-92	1800	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			03-05-92	0520	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			03-05-92	1735	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			03-05-92	1736	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
MV-1	363530116021401	Army 1 WW	12-18-91	1015	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AD-2	363830116241401	Airport Well	03-24-92	1640	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AD-2a	363835116234001	NDOT Well	09-03-91	1530	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			04-27-92	1415	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			09-05-91	2000	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			03-24-92	0950	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			08-26-91	1900	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			08-18-92	0948	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AM-2	362755116190401	Five Springs Well	08-24-90	1145	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			04-28-92	1020	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			08-18-92	1600	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AM-3	362555116205301	Garners Well	08-27-90	1115	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			08-31-91	1030	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AM-4	362532116172700	Devils Hole	08-22-90	1200	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			08-27-91	1430	--	--	--	--	--	--	--	--	--
			08-19-92	0942	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Ace-naph-thene, total (µg/L)	Ace-naph-thylene, total (µg/L)	Anthra-cene, total (µg/L)	Benz-idine, total (µg/L)	Benzo-(a) anthra-cene, total (µg/L)	Benzo-(b) fluor-anthene, total (µg/L)	Benzo-(k) fluor-anthene, total (µg/L)	Benzo-(g,h,i) pery-lene, total (µg/L)	Benzo-(a) pyrene, total (µg/L)
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			09-05-91	1430	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
AM-8	362230116162001	Big Spring	08-22-90	1730	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			08-27-91	0900	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
			08-19-92	1540	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
DV-1	362728116501101	Texas Spring	08-23-90	1630	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			08-28-91	0845	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10
DV-2	362252116425301	Navel Spring	08-23-90	1130	<5.0	<5.0	<5.0	--	<10	<10	<10	<10	<10
			08-28-91	1300	<5.0	<5.0	<5.0	<40	<10	<10	<10	<10	<10

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Bis (2-chloro-ethoxy) methane, total (µg/L)	Bis (2-chloro-ethyl) ether, total (µg/L)	Bis (2-chloro-iso-propyl) ether, total (µg/L)	4-Bromo-phenyl, phenyl ether, total (µg/L)	n-Butyl-benzyl-phtha-late, total (µg/L)	para-Chloro-meta-cresol, total (µg/L)	2-Chloro-naph-thalene, total (µg/L)	2-Chloro-phenol, total (µg/L)	penta-Chloro-phenol, total (µg/L)	4-Chloro-phenyl, phenyl ether, total (µg/L)	Chry-sene, total (µg/L)
CF-1	09-04-91	1015	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	03-25-92	1025	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
CF-2a	09-04-91	1545	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	03-26-92	1005	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
J-13	12-17-91	1207	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
J-12	12-18-91	1540	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
JF-3	03-04-92	1800	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	03-05-92	0520	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	03-05-92	1735	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	03-05-92	1736	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
MV-1	12-18-91	1015	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AD-2	03-24-92	1640	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AD-2a	09-03-91	1530	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	04-27-92	1415	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AD-4a	08-25-90	1700	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AD-8	08-24-90	1530	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	09-05-91	2000	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	03-24-92	0950	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AD-9a	04-29-92	1000	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AM-1a	08-21-90	1450	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-26-91	1900	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-18-92	0948	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AM-2	08-24-90	1145	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	04-28-92	1020	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-18-92	1600	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AM-3	08-27-90	1115	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-31-91	1030	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AM-4	08-22-90	1200	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-27-91	1430	--	--	--	--	--	--	--	--	--	--	--
	08-19-92	0942	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Bis (2-chloro-ethoxy) methane, total (µg/L)	Bis (2-chloro-ethyl) ether, total (µg/L)	Bis (2-chloro-iso-propyl) ether, total (µg/L)	4-Bromo-phenyl, phenyl ether, total (µg/L)	n-Butyl-benzyl-phtha-late, total (µg/L)	para-Chloro-meta-cresol, total (µg/L)	2-Chloro-naph-thalene, total (µg/L)	2-Chloro-phenol, total (µg/L)	penta-Chloro-phenol, total (µg/L)	4-Chloro-phenyl, phenyl ether, total (µg/L)	Chry-sene, total (µg/L)
AM-5a	08-25-90	1000	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	09-05-91	1430	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
AM-8	08-22-90	1730	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-27-91	0900	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-19-92	1540	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
DV-1	08-23-90	1630	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-28-91	0845	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
DV-2	08-23-90	1130	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10
	08-28-91	1300	<5.0	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<30	<5.0	<10

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Dibenzo-(a,h) anthracene, total (µg/L)	Di-n-butyl-phthalate, total (µg/L)	1,2-Dichlorobenzene, total (µg/L)	1,3-Dichlorobenzene, total (µg/L)	1,4-Dichlorobenzene, total (µg/L)	3,3-Dichlorobenzidine, total (µg/L)	2,4-Dichlorophenol, total (µg/L)	Diethylhexyl-phthalate, total (µg/L)	Diethyl-phthalate, total (µg/L)	2,4-Dimethylphenol, total (µg/L)	Dimethyl-phthalate, total (µg/L)
CF-1	09-04-91	1015	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	03-25-92	1025	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
CF-2a	09-04-91	1545	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	03-26-92	1005	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
J-13	12-17-91	1207	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
J-12	12-18-91	1540	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
JF-3	03-04-92	1800	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	03-05-92	0520	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	03-05-92	1735	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	03-05-92	1736	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
MV-1	12-18-91	1015	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AD-2	03-24-92	1640	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AD-2a	09-03-91	1530	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	04-27-92	1415	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AD-4a	08-25-90	1700	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
AD-8	08-24-90	1530	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	09-05-91	2000	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	03-24-92	0950	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AD-9a	04-29-92	1000	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AM-1a	08-21-90	1450	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-26-91	1900	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	08-18-92	0948	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AM-2	08-24-90	1145	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	04-28-92	1020	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	08-18-92	1600	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AM-3	08-27-90	1115	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-31-91	1030	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AM-4	08-22-90	1200	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-27-91	1430	--	--	<.2	<.2	<.2	--	--	--	--	--	--
	08-19-92	0942	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Dibenzo-(a,h) anthracene, total (µg/L)	Di-n-butyl-phthalate, total (µg/L)	1,2-Dichlorobenzene, total (µg/L)	1,3-Dichlorobenzene, total (µg/L)	1,4-Dichlorobenzene, total (µg/L)	3,3-Dichlorobenzidine, total (µg/L)	2,4-Dichlorophenol, total (µg/L)	Diethylhexyl-phthalate, total (µg/L)	Diethyl-phthalate, total (µg/L)	2,4-Dimethylphenol, total (µg/L)	Dimethyl-phthalate, total (µg/L)
AM-5a	08-25-90	1000	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	09-05-91	1430	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
AM-8	08-22-90	1730	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-27-91	0900	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
	08-19-92	1540	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
DV-1	08-23-90	1630	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-28-91	0845	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0
DV-2	08-23-90	1130	<10	<5.0	<3.0	<3.0	<3.0	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-28-91	1300	<10	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<5.0

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	4,6-Dinitro-ortho-cresol, total (µg/L)	2,4-Dinitrophenol, total (µg/L)	2,4-Dinitrotoluene, total (µg/L)	2,6-Dinitrotoluene, total (µg/L)	Di-n-octylphthalate, total (µg/L)	1,2-Diphenyl hydrazine, total (µg/L)	Fluoranthene, total (µg/L)	Fluorene, total (µg/L)	Hexachlorobenzene, total (µg/L)	Hexachlorobutadiene, total (µg/L)	Hexachlorocyclopentadiene, total (µg/L)
CF-1	09-04-91	1015	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	03-25-92	1025	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
CF-2a	09-04-91	1545	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	03-26-92	1005	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
J-13	12-17-91	1207	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
J-12	12-18-91	1540	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
JF-3	03-04-92	1800	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	03-05-92	0520	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	03-05-92	1735	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	03-05-92	1736	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
MV-1	12-18-91	1015	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AD-2	03-24-92	1640	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AD-2a	09-03-91	1530	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	04-27-92	1415	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AD-4a	08-25-90	1700	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
AD-8	08-24-90	1530	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	09-05-91	2000	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	03-24-92	0950	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AD-9a	04-29-92	1000	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AM-1a	08-21-90	1450	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-26-91	1900	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	08-18-92	0948	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AM-2	08-24-90	1145	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	04-28-92	1020	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	08-18-92	1600	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AM-3	08-27-90	1115	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-31-91	1030	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AM-4	08-22-90	1200	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-27-91	1430	--	--	--	--	--	--	--	--	--	--	--
	08-19-92	0942	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	4,6-Di-nitro-ortho-cresol, total (µg/L)	2,4-Di-nitro-phenol, total (µg/L)	2,4-Di-nitro-toluene, total (µg/L)	2,6-Di-nitro-toluene, total (µg/L)	Di-n-octyl-phtha-late, total (µg/L)	1,2-Diphenyl hydrazine, total (µg/L)	Fluor-anthene, total (µg/L)	Fluor-ene, total (µg/L)	Hexa-chloro-benzene, total (µg/L)	Hexa-chloro-but-adiene, total (µg/L)	Hexa-chloro-cyclo-pent-adiene, total (µg/L)
AM-5a	08-25-90	1000	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	09-05-91	1430	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
AM-8	08-22-90	1730	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-27-91	0900	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	08-19-92	1540	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
DV-1	08-23-90	1630	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-28-91	0845	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
DV-2	08-23-90	1130	<30	<20	<5.0	<5.0	<10	--	<5.0	<5.0	<5.0	<5.0	<5.0
	08-28-91	1300	<30	<20	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Hexa-chloro-ethane, total (µg/L)	Indeno (1,2, 3-cd) pyrene, total (µg/L)	Iso-phorone, total (µg/L)	Naph-thalene, total (µg/L)	Nitro-benzene, total (µg/L)	o-Nitro-phenol, total (µg/L)	p-Nitro-phenol, total (µg/L)	N-nitro-sodi-methyl-amine, total (µg/L)	N-nitro-sodi-phenyl-amine, total (µg/L)	N-nitro-sodi-n-propyl-amine, total (µg/L)	PCB, total (µg/L)	PCN, total (µg/L)
CF-1	09-04-91	1015	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<0.1	<0.1
	03-25-92	1025	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
CF-2a	09-04-91	1545	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	03-26-92	1005	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
J-13	12-17-91	1207	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
J-12	12-18-91	1540	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
JF-3	03-04-92	1800	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	03-05-92	0520	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	03-05-92	1735	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	03-05-92	1736	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
MV-1	12-18-91	1015	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AD-2	03-24-92	1640	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AD-2a	09-03-91	1530	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	04-27-92	1415	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AD-4a	08-25-90	1700	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AD-8	08-24-90	1530	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	09-05-91	2000	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	--	--
	03-24-92	0950	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AD-9a	04-29-92	1000	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AM-1a	08-21-90	1450	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-26-91	1900	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-18-92	0948	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AM-2	08-24-90	1145	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	.2	<.1
	04-28-92	1020	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	1.1	<.1
	08-18-92	1600	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	--	--
AM-3	08-27-90	1115	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-31-91	1030	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AM-4	08-22-90	1200	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-27-91	1430	--	--	--	--	--	--	--	--	--	--	--	--
	08-19-92	0942	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Hexa-chloro-ethane, total (µg/L)	Indeno (1,2, 3-cd) pyrene, total (µg/L)	Iso-phorone, total (µg/L)	Naph-thalene, total (µg/L)	Nitro-benzene, total (µg/L)	o-Nitro-phenol, total (µg/L)	p-Nitro-phenol, total (µg/L)	N-nitro-sodi-methyl-amine, total (µg/L)	N-nitro-sodi-phenyl-amine, total (µg/L)	N-nitro-sodi-n-propyl-amine, total (µg/L)	PCB, total (µg/L)	PCN, total (µg/L)
AM-5a	08-25-90	1000	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	09-05-91	1430	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
AM-8	08-22-90	1730	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-27-91	0900	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-19-92	1540	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
DV-1	08-23-90	1630	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-28-91	0845	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
DV-2	08-23-90	1130	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1
	08-28-91	1300	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<30	<5.0	<5.0	<5.0	<.1	<.1

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Phenanthrene, total (µg/L)	Phenol, total (µg/L)	Pyrene, total (µg/L)	1,2,4-Trichlorobenzene, total (µg/L)	2,4,6-Trichlorophenol, total (µg/L)
CF-1	09-04-91	1015	<5.0	<5.0	<5.0	<5.0	<20
	03-25-92	1025	<5.0	<5.0	<5.0	<5.0	<20
CF-2a	09-04-91	1545	<5.0	<5.0	<5.0	<5.0	<20
	03-26-92	1005	<5.0	<5.0	<5.0	<5.0	<20
J-13	12-17-91	1207	<5.0	<5.0	<5.0	<5.0	<20
J-12	12-18-91	1540	<5.0	<5.0	<5.0	<5.0	<20
JF-3	03-04-92	1800	<5.0	<5.0	<5.0	<5.0	<20
	03-05-92	0520	<5.0	<5.0	<5.0	<5.0	<20
	03-05-92	1735	<5.0	<5.0	<5.0	<5.0	<20
	03-05-92	1736	<5.0	<5.0	<5.0	<5.0	<20
MV-1	12-18-91	1015	<5.0	<5.0	<5.0	<5.0	<20
AD-2	03-24-92	1640	<5.0	<5.0	<5.0	<5.0	<20
AD-2a	09-03-91	1530	<5.0	<5.0	<5.0	<5.0	<20
	04-27-92	1415	<5.0	<5.0	<5.0	<5.0	<20
AD-4a	08-25-90	1700	<5.0	<5.0	<5.0	<5.0	<20
AD-8	08-24-90	1530	<5.0	<5.0	<5.0	<5.0	<20
	09-05-91	2000	<5.0	<5.0	<5.0	<5.0	<20
	03-24-92	0950	<5.0	<5.0	<5.0	<5.0	<20
AD-9a	04-29-92	1000	<5.0	<5.0	<5.0	<5.0	<20
AM-1a	08-21-90	1450	<5.0	<5.0	<5.0	<5.0	<20
	08-26-91	1900	<5.0	<5.0	<5.0	<5.0	<20
	08-18-92	0948	<5.0	<5.0	<5.0	<5.0	<20
AM-2	08-24-90	1145	<5.0	<5.0	<5.0	<5.0	<20
	04-28-92	1020	<5.0	<5.0	<5.0	<5.0	<20
	08-18-92	1600	<5.0	<5.0	<5.0	<5.0	<20
AM-3	08-27-90	1115	<5.0	<5.0	<5.0	<5.0	<20
	08-31-91	1030	<5.0	<5.0	<5.0	<5.0	<20
AM-4	08-22-90	1200	<5.0	<5.0	<5.0	<5.0	<20
	08-27-91	1430	--	--	--	--	--
	08-19-92	0942	<5.0	<5.0	<5.0	<5.0	<20

Table 11. Semi-volatile organic industrial compounds in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Phenanthrene, total (µg/L)	Phenol, total (µg/L)	Pyrene, total (µg/L)	1,2,4-Trichlorobenzene, total (µg/L)	2,4,6-Trichlorophenol, total (µg/L)
AM-5a	08-25-90	1000	<5.0	<5.0	<5.0	<5.0	<20
	09-05-91	1430	<5.0	<5.0	<5.0	<5.0	<20
AM-8	08-22-90	1730	<5.0	<5.0	<5.0	<5.0	<20
	08-27-91	0900	<5.0	<5.0	<5.0	<5.0	<20
	08-19-92	1540	<5.0	<5.0	<5.0	<5.0	<20
DV-1	08-23-90	1630	<5.0	<5.0	<5.0	<5.0	<20
	08-28-91	0845	<5.0	<5.0	<5.0	<5.0	<20
DV-2	08-23-90	1130	<5.0	<5.0	<5.0	<5.0	<20
	08-28-91	1300	<5.0	<5.0	<5.0	<5.0	<20

Table 12. Organochlorine and organophosphorus pesticides in water samples, 1990 through 1992

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
[Abbreviations and symbols: µg/L, micrograms per liter; --, not determined; <, less than]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Aldrin, total (µg/L)	Chlordane, total (µg/L)	2,4-D, total (µg/L)	2,4-DP, total (µg/L)	DDD, total (µg/L)	DDE, total (µg/L)	DDT, total (µg/L)	Dieldrin, total (µg/L)	Endosulfan, total (µg/L)
CF-1	365520116370301	Gexa Well 4	09-04-91	1015	<0.01	<0.1	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
			03-25-92	1025	<.01	<.1	<0.01	<.01	<.01	<.01	<.01	<.01	<.01
CF-2a	365821116343701	USW VH-2	09-04-91	1545	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			03-26-92	1005	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
J-13	364828116234001	J-13 WW	12-17-91	1207	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
J-12	364554116232401	J-12 WW	12-18-91	1540	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
JF-3	364528116232201	JF-3	03-04-92	1800	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			03-05-92	0520	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			03-05-92	1735	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			03-05-92	1736	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
MV-1	363530116021401	Army 1 WW	12-18-91	1015	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AD-2	363830116241401	Airport Well	03-24-92	1640	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AD-2a	363835116234001	NDOT Well	09-03-91	1530	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			04-27-92	1415	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			09-05-91	2000	--	--	<.01	<.01	--	--	--	--	--
			03-24-92	0950	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-26-91	1900	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-18-92	0948	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AM-2	362755116190401	Five Springs Well	08-24-90	1145	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			04-28-92	1020	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-18-92	1600	--	--	<.01	<.01	--	--	--	--	--
AM-3	362555116205301	Garners Well	08-27-90	1115	<.01	<.1	--	--	<.01	<.01	<.01	<.01	<.01
			08-31-91	1030	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AM-4	362532116172700	Devils Hole	08-22-90	1200	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-27-91	1430	--	--	<.01	<.01	--	--	--	--	--
			08-19-92	0942	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01

Table 12. Organochlorine and organophosphorus pesticides in water samples, 1990 through 1992--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Aldrin, total (µg/L)	Chlordane, total (µg/L)	2,4-D, total (µg/L)	2,4-DP, total (µg/L)	DDD, total (µg/L)	DDE, total (µg/L)	DDT, total (µg/L)	Dieldrin, total (µg/L)	Endosulfan, total (µg/L)
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
			09-05-91	1430	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AM-8	362230116162001	Big Spring	08-22-90	1730	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-27-91	0900	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-19-92	1540	<.01	<.1	--	--	<.01	<.01	<.01	<.01	<.01
DV-1	362728116501101	Texas Spring	08-23-90	1630	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
			08-28-91	0845	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01
DV-2	362252116425301	Navel Spring	08-23-90	1130	<.01	<.1	--	--	<.01	<.01	<.01	<.01	<.01
			08-28-91	1300	<.01	<.1	<.01	<.01	<.01	<.01	<.01	<.01	<.01

Table 12. Organochlorine and organophosphorus pesticides in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Endrin, total (µg/L)	Hepta-chlor, total (µg/L)	Hepta-chlor epoxide, total (µg/L)	Lindane, total (µg/L)	Methoxy-chlor, total (µg/L)	Mirex, total (µg/L)	Perthane, total (µg/L)	2,4,5-T, total (µg/L)	2,4,5-TP, total (µg/L)	Toxa-phene, total (µg/L)
CF-1	09-04-91	1015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	--	--	<1.0
	03-25-92	1025	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<0.01	<0.01	<1.0
CF-2a	09-04-91	1545	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	03-26-92	1005	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
J-13	12-17-91	1207	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
J-12	12-18-91	1540	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
JF-3	03-04-92	1800	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	03-05-92	0520	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	03-05-92	1735	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	03-05-92	1736	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
MV-1	12-18-91	1015	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AD-2	03-24-92	1640	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AD-2a	09-03-91	1530	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	04-27-92	1415	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AD-4a	08-25-90	1700	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AD-8	08-24-90	1530	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	09-05-91	2000	--	--	--	--	--	--	--	<.01	<.01	--
	03-24-92	0950	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AD-9a	04-29-92	1000	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AM-1a	08-21-90	1450	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-26-91	1900	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-18-92	0948	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AM-2	08-24-90	1145	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	04-28-92	1020	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-18-92	1600	--	--	--	--	--	--	--	<.01	<.01	--
AM-3	08-27-90	1115	<.01	<.01	<.01	<.01	<.01	<.01	<.1	--	--	<1.0
	08-31-91	1030	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AM-4	08-22-90	1200	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-27-91	1430	--	--	--	--	--	--	--	<.01	<.01	--
	08-19-92	0942	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0

Table 12. Organochlorine and organophosphorus pesticides in water samples, 1990 through 1992--Continued

Site number (plate 1)	Date sampled	Time	Endrin, total (µg/L)	Hepta-chlor, total (µg/L)	Hepta-chlor epoxide, total (µg/L)	Lindane, total (µg/L)	Methoxy-chlor, total (µg/L)	Mirex, total (µg/L)	Perthane, total (µg/L)	2,4,5-T, total (µg/L)	2,4,5-TP, total (µg/L)	Toxa-phene, total (µg/L)
AM-5a	08-25-90	1000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<1.0
	09-05-91	1430	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
AM-8	08-22-90	1730	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-27-91	0900	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-19-92	1540	<.01	<.01	<.01	<.01	<.01	<.01	<.1	--	--	<1.0
DV-1	08-23-90	1630	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
	08-28-91	0845	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0
DV-2	08-23-90	1130	<.01	<.01	<.01	<.01	<.01	<.01	<.1	--	--	<1.0
	08-28-91	1300	<.01	<.01	<.01	<.01	<.01	<.01	<.1	<.01	<.01	<1.0

Table 13. Minimum, maximum, and median water-level altitudes, and average deviation of measurements, at wells in Jackass Flats for selected periods prior to 1992 and for 1992. Excludes water-level altitudes noted with water-level status of "R" or "P" to minimize effects of what may represent transient conditions at a site

Calendar years: Years during which measurements were used for calculating summary statistics.
Number: Number of water-level measurements for years specified.
Minimum: Minimum water-level altitude measured for years specified.
Maximum: Maximum water level altitude measured for years specified.
Median: Representative water-level altitude for years specified.
Average deviation: Calculated dispersion of measured water levels about the median. Average deviation is equal to sum of absolute differences between measured water levels and median, divided by number of measurements.
Change in median: Difference between medians for 1992 and for period prior to 1992. Minus sign indicates that median water-level altitude was lower in 1992.
[Abbreviations and symbols: "I", insufficient data; --, no data available (water-level measurements began in January 1992)]

	Baseline period prior to 1992						Calendar Year 1992					
Site number (plate 1)	Calendar years	Number	Minimum (feet above sea level)	Maximum (feet above sea level)	Median (feet above sea level)	Average deviation (feet)	Number	Minimum (feet above sea level)	Maximum (feet above sea level)	Median (feet above sea level)	Average deviation (feet)	Change in median (feet)
JF-1	1985-91	86	2,391.7	2,393.1	2,392.5	0.2	12	2,392.3	2,392.6	2,392.4	0.1	-0.1
JF-2	1985-91	25	2,391.2	2,392.7	2,392.1	.3	3	2,392.0	2,392.2	I	I	I
JF-2a	1985-91	24	2,466.9	2,469.0	2,468.7	.3	7	2,467.5	2,469.0	2,468.4	.5	-.3
J-13	1989-91	32	2,389.7	2,390.7	2,390.0	.2	21	2,389.6	2,390.4	2,389.9	.1	-.1
J-11	1990-91	25	2,401.9	2,402.9	2,402.2	.1	12	2,402.0	2,402.6	2,402.2	.1	0
J-12	1990-91	22	2,388.1	2,388.5	2,388.3	.1	17	2,388.2	2,388.6	2,388.3	.1	0
JF-3	--	--	--	--	--	--	49	2,388.0	2,388.6	2,388.2	.1	--

Table 14. Summary of (1) physical, chemical, and microbiological measures of ground-water samples that exceeded U.S. Environmental Protection Agency drinking-water standards, and (2) organic industrial compounds detected in samples

U.S. Geological Survey site identification: Unique identification number for site as stored in files and data bases of U.S. Geological Survey.
Physical, chemical, and microbiological measures: Any detected industrial organic compounds, and any physical, chemical, and microbiological measures that exceed drinking-water standards.
Measured concentration: Concentration of physical, chemical, and microbiological measures, unless otherwise indicated.
Maximum contaminant level: Maximum contaminant level (MCL) is established primary drinking-water standard, which is a health-based and enforceable standard. Maximum permissible level of contaminant in water that is delivered to any user of a public water system (U.S. Environmental Protection Agency, 1990). Values shown are for established MCL's and standards except for chloroform, a tentative standard; arsenic, a standard under review; and gross alpha, radon-222, and uranium, which are proposed standards. Standard for total coliform (for systems collecting fewer than 40 samples per month), is no more than 1 positive sample per month. One colony per 100 milliliters of sample is considered a positive sample. Turbidity standards are based on surface-water supplies or ground-water supplies that are influenced by surface-water sources or surface contaminants. Filtration treatment techniques are required if turbidity levels exceed 5 NTU.
Secondary maximum contaminant level: Secondary maximum contaminant level (SMCL) is established secondary drinking-water standard, which is an aesthetically based and nonenforceable standard (U.S. Environmental Protection Agency, 1990). Values are based on aesthetic quality of water, such as taste, odor, or color. Values shown are for established SMCL's, except that for fluoride, which is under review. Level shown for pH is upper limit in recommended range of 6.5 to 8.5 standard pH units.
[Abbreviations: col./100 mL, colonies per 100 milliliters; °C, degrees Celsius; K, less than ideal count; µg/L, micrograms per liter; mg/L, milligrams per liter; NTU, nephelometric turbidity units; pCi/L, picocuries per liter; Pt-Co units, platinum-cobalt color units; std. units, standard pH units]

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Physical, chemical, and microbiological measures	Measured concentration	Maximum contaminant level	Secondary maximum contaminant level
CF-1	365520116370301	Gexa Well 4	09-04-91	1015	Fluoride, dissolved	3.4 mg/L		2.0 mg/L
			03-25-92	1025	Fluoride, dissolved	3.0 mg/L		2.0 mg/L
					Coliform, total, membrane filtered	K20 col./100 mL	1 col./100 mL	
					Radon-222, total	620 pCi/L	300 pCi/L	
CF-2a	365821116343701	USW VH-2	09-04-91	1545	Solids, residue at 180 °C, dissolved	551 mg/L		500 mg/L
			03-26-92	1005	Solids, residue at 180 °C, dissolved	549 mg/L		500 mg/L
					Radon-222, total	370 pCi/L	300 pCi/L	
J-13	364828116234001	J-13 WW	12-17-91	1207	Fluoride, dissolved	2.3 mg/L		2.0 mg/L
J-12	364554116232401	J-12 WW	12-18-91	1540	Radon-222, total	330 pCi/L	300 pCi/L	
JF-3	364528116232201	JF-3	03-04-92	1800	Radon-222, total	310 pCi/L	300 pCi/L	
			03-05-92	0520	Coliform, total, membrane filtered	50 col./100 mL	1 col./100 mL	
					Radon-222, total	410 pCi/L	300 pCi/L	
			03-05-92	1735	Coliform, total, membrane filtered	21 col./100 mL	1 col./100 mL	
					Radon-222, total	420 pCi/L	300 pCi/L	
			03-05-92	1736	Coliform, total, membrane filtered	21 col./100 mL	1 col./100 mL	
					Radon-222, total	320 pCi/L	300 pCi/L	

Table 14 Summary of (1) physical, chemical, and microbiological measures of ground-water samples that exceeded U.S. Environmental Protection Agency drinking-water standards and (2) organic industrial compounds detected in samples--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Physical, chemical, and microbiological measures	Measured concentration	Maximum contaminant level	Secondary maximum contaminant level
AD-2	363830116241401	Airport Well	03-24-92	1640	pH	9.0 std. units		8.5 std. units
					Radon-222, total	610 pCi/L	300 pCi/L	
AD-2a	363835116234001	NDOT Well	09-03-91	1530	Radon-222, total	510 pCi/L	300 pCi/L	
			04-27-92	1415	Coliform, total, membrane filtered	K2 col./100 mL	1 col./100 mL	
					Radon-222, total	620 pCi/L	300 pCi/L	
					Chloroform, total	0.3 µg/L	100 µg/L	
AD-4a	363428116234701	Cooks East Well	08-25-90	1700	Fluoride, dissolved	3.8 mg/L		2.0 mg/L
					Solids, residue at 180 °C, dissolved	537 mg/L		500 mg/L
AD-8	362929116085701	Cherry Patch Well	08-24-90	1530	Coliform, total, membrane filtered	K33 col./100ml	1 col./100 mL	
					Sulfate, dissolved	500 mg/L		250 mg/L
					Solids, residue at 180 °C, dissolved	1,260 mg/L		500 mg/L
					Gross alpha, dissolved	22 pCi/L	15 pCi/L	
					Radon-222, total	500 pCi/L	300 pCi/L	
			09-05-91	2000	Sulfate, dissolved	540 mg/L		250 mg/L
					Solids, residue at 180 °C, dissolved	1,270 mg/L		500 mg/L
					Radon-222, total	570 pCi/L	300 pCi/L	
			03-24-92	0950	Sulfate, dissolved	480 mg/L		250 mg/L
					Solids, residue at 180 °C, dissolved	1,220 mg/L		500 mg/L
					Uranium, natural, dissolved	21 µg/L	20 µg/L	
					Gross alpha, dissolved	20 pCi/L	15 pCi/L	
					Radon-222, total	570 pCi/L	300 pCi/L	
AD-9a	362835116264101	Gilgans South Well	04-29-92	1000	Coliform, total, membrane filtered	K6 col./100 mL	1 col./100 mL	
					Radon-222, total	700 pCi/L	300 pCi/L	
AM-1a	362924116203001	Fairbanks Spring	08-21-90	1450	Coliform, total, membrane filtered	300 col./100 mL	1 col./100 mL	
			08-26-91	1900	Coliform, total, membrane filtered	K50 col./100 mL	1 col./100 mL	
			08-18-92	0948	Coliform, total, membrane filtered	210 col./100 mL	1 col./100 mL	
AM-2	362755116190401	Five Springs Well	08-24-90	1145	Coliform, total, membrane filtered	K14 col./100 mL	1 col./100 mL	
					PCB, total	0.2 µg/L	0.5 µg/L	
			04-28-92	1020	Coliform, total, membrane filtered	510 col./100 mL	1 col./100 mL	
					PCB, total	1.1 µg/L	0.5 µg/L	
			08-18-92	1600	Coliform, total, membrane filtered	51 col./100 mL	1 col./100 mL	
					Radon-222, total	510 pCi/L	300 pCi/L	

Table 14 Summary of (1) physical, chemical, and microbiological measures of ground-water samples that exceeded U.S. Environmental Protection Agency drinking-water standards and (2) organic industrial compounds detected in samples--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Physical, chemical, and microbiological measures	Measured concentration	Maximum contaminant level	Secondary maximum contaminant level
AM-3	362555116205301	Garners Well	08-27-90	1115	Fluoride, dissolved	3.2 mg/L		2.0 mg/L
					Solids, residue at 180 °C, dissolved	976 mg/L		500 mg/L
					Arsenic, dissolved	53 µg/L	50 µg/L	
					Iron, dissolved	860 µg/L		300 µg/L
			08-31-91	1030	Fluoride, dissolved	3.0 mg/L		2.0 mg/L
					Solids, residue at 180 °C, dissolved	3,370 mg/L		500 mg/L
					Sulfate, dissolved	1,400 mg/L		250 mg/L
					Cadmium, dissolved	10 µg/L	5 µg/L	
					Iron, dissolved	520 µg/L		300 µg/L
					Gross alpha, dissolved	18 pCi/L	15 pCi/L	
AM-4	362532116172700	Devils Hole	08-22-90	1200	Coliform, total, membrane filtered	K79 col./100 mL	1 col./100 mL	
			08-27-91	1430	Coliform, total, membrane filtered	270 col./100 mL	1 col./100 mL	
					Benzene, total	0.2 µg/L	5 µg/L	
					Toluene, total	0.3 µg/L	1000 µg/L	
			08-19-92	0942	Coliform, total, membrane filtered	K14 col./100 mL	1 col./100 mL	
AM-5a	362502116192301	Crystal Pool	08-25-90	1000	Coliform, total, membrane filtered	K26 col./100 mL	1 col./100 mL	
					Radon-222, total	440 pCi/L	300 pCi/L	
			09-05-91	1430	Color	25 Pt-Co units		15 Pt-Co units
					Coliform, total, membrane filtered	21 col./100 mL	1 col./100 mL	
					Radon-222, total	500 pCi/L	300 pCi/L	
AM-8	362230116162001	Big Spring	08-22-90	1730	Coliform, total, membrane filtered	290 col./100 mL	1 col./100 mL	
					Radon-222, total	360 pCi/L	300 pCi/L	
			08-27-91	0900	Coliform, total, membrane filtered	110 col./100 mL	1 col./100 mL	
			08-19-92	1540	Coliform, total, membrane filtered	87 col./100 mL	1 col./100 mL	
					Radon-222, total	320 pCi/L	300 pCi/L	

Table 14 Summary of (1) physical, chemical, and microbiological measures of ground-water samples that exceeded U.S. Environmental Protection Agency drinking-water standards and (2) organic industrial compounds detected in samples--Continued

Site number (plate 1)	U.S. Geological Survey site identification	Site name	Date sampled	Time	Physical, chemical, and microbiological measures	Measured concentration	Maximum contaminant level	Secondary maximum contaminant level
DV-1	362728116501101	Texas Spring	08-23-90	1630	Fluoride, dissolved	3.4 mg/L		2.0 mg/L
					Solids, residue at 180 °C, dissolved	604 mg/L		500 mg/L
			08-28-91	0845	Fluoride, dissolved	3.9 mg/L		2.0 mg/L
					Solids, residue at 180 °C, dissolved	589 mg/L		500 mg/L
DV-2	362252116425301	Navel Spring	08-23-90	1130	Solids, residue at 180 °C, dissolved	546 mg/L		500 mg/L
					Arsenic, dissolved	200 µg/L	50 µg/L	
			08-28-91	1300	Turbidity	17 NTU	5 NTU	
					Coliform, total, membrane filtered	K14 col./100 mL	1 col./100 mL	
					Solids, residue at 180 °C, dissolved	563 mg/L		500 mg/L
					Arsenic, dissolved	180 µg/L	50 µg/L	

The following number is for U.S. Department of Energy Office of Civilian Radioactive Waste Management (OCRWM) records management purposes only and should not be used when ordering this publication:
ACCESSION NUMBER: NNA.940523.0064

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994 - 573-191 / 80044 REGION NO. 8

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

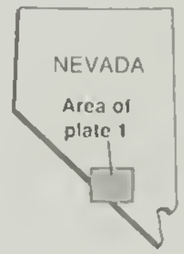
PREPARED IN COOPERATION WITH
U.S. DEPARTMENT OF ENERGY

OPEN-FILE REPORT 94-54
Study area map-PLATE 1
La Camera, R.J., and Westenburg, C.L., 1994
Selected ground water data for Yucca Mountain region
southern Nevada and eastern California, through December 1992

EXPLANATION

- STUDY-AREA BOUNDARY
- GROUND-WATER SUBBASIN BOUNDARY--From Waddell and others (1984, pl. 3) and R.J. Laczniak (U.S. Geological Survey, written commun., 1993)
- HYDROGRAPHIC-AREA BOUNDARY
- DATA-COLLECTION SITE--Site number (table 1) and primary contributing unit are indicated

AD-6	Carbonate rock
CF-1	Volcanic rock
AD-1	Valley fill
DV-2	Undifferentiated sedimentary rock
DV-1	Combined carbonate rock and valley fill



MAP SHOWING LOCATION OF DATA-COLLECTION SITES THROUGH 1992, YUCCA MOUNTAIN REGION OF SOUTHERN NEVADA AND EASTERN CALIFORNIA

by

Richard J. La Camera and Craig L. Westenburg

1994